



County Borough of Derby.

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# ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH

FOR THE

**YEAR 1919,**

BY

ALBERT E. BRINDLEY, M.D., B.Sc., D.P.H., &c.,

*Medical Officer of Health;*

*Medical Superintendent of the Borough Isolation Hospital, and*

*Medical Officer to the Education Committee.*

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DERBY.

J. W. SIMPSON AND SONS, LTD., PRINTERS, FRIAR GATE.





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PUBLIC HEALTH DEPARTMENT,

FORD STREET,

August, 1920.

*To the Chairman and Members of the Health  
Committee of the County Borough of Derby.*

MR. CHAIRMAN, MRS. HULSE AND GENTLEMEN,

I beg to submit the Annual Report on the health of the Borough of Derby for the year 1919, this being the 42nd Annual Report of your Medical Officer of Health.

The records show certain satisfactory features, which may be enumerated as follows :—

(1). The birth-rate is increased by nearly 3 per 1,000, as compared with that for 1918, while the death-rate has diminished by exactly 3 per 1,000 inhabitants. The improved death-rate is to a considerable extent attributable to the diminution of the number of deaths from Influenza.

(2). Diminished numbers of deaths from many of the Infectious Diseases were recorded during the year. Enteric (or Typhoid) Fever caused no death during 1919, and one death only was attributed to Scarlet Fever. The deaths from Diphtheria also showed a diminution in number, as well as those from Tuberculosis. The deaths from Diarrhœa are only half those which occurred in 1918, when the number was also low. To some extent this satisfactory result was due to climatic conditions; a wet, late summer and autumn being most favourable to the prevention of this serious disease of infants.

(3). The infantile mortality shews a reduction, although not a great one. Although Bronchitis showed an increase in the number of deaths, this was more than counter-balanced by a decrease in the deaths from Pneumonia. This latter disease is now notifiable (since March 1st, 1919); the main object of the notification being

to ensure that patients shall receive adequate nursing and medical attention, food, etc., and be treated under proper hygienic conditions.

Among the unsatisfactory features of the Report are :—

(1). An increase in number of notified cases of Ophthalmia in young babies, the number of cases being 57 more than the number in 1918. It is to be feared that there has been an increase in Venereal Disease in the town during recent years.

(2). Increased number of deaths from Premature Birth ; this number is more than double that in 1912.

(3). The proportion of illegitimate births is again high, and the infantile mortality rate was more than double that in legitimate children.

Derby had a visitation of Measles during the year, both German Measles in the early part of the year, and ordinary Measles in the latter part, each reaching epidemic characters. The epidemic of the former seemed to commence in February, and was closely followed by an epidemic of ordinary Measles later in the year. A special report of these epidemics has been forwarded to the Ministry of Health, this report being printed as an Appendix. The attention of the public might be specially directed to the fatality from ordinary measles in young children ; the great majority of deaths took place in babies and young children under three years of age.

An outbreak, fortunately localised, of the obscure disease known as Encephalitis Lethargica attacked the inmates of an Institution in Derby during the year. This disease, which has been confused with the condition known as Botulism, attributed to food poisoning, and also popularly considered to be allied to Sleeping Sickness, attacked most of the inmates of the institution referred to, and was the cause of five deaths. The patients were all young women of ages varying from 14 to 24. No clue to the origin of the disease, which must be considered infectious, was discovered. Fortunately there was no spread from the institution to any part of the town or district. The department was assisted in the investigation of these cases of this obscure disease by Dr. McNalty of



the Ministry of Health, who was kindly sent down in response to a telegram from the Health Department, as it is recognised by the Ministry that our knowledge of the cause, mode of transmission, etc., of the disease, is still very incomplete.

Among the administrative measures associated with the improvement of the health of the inhabitants of Derby, the most important is the Housing problem, and it is satisfactory to record that the Provision of Houses Committee was able to report considerable progress in the erection of new houses during the year under review. Details of the state of things in December is given on page 104. At the time of writing I might state that over 80 of the new houses are occupied. Many cases of serious overcrowding have been brought to my notice during the year, and it is hoped to relieve the most urgent ones at an early date; the conditions in some cases can only be described as distressing.

Mention may be made of the progress in improving the accommodation at the Infectious Diseases Hospital and Sanatorium, which were commenced during the year. These consisted of

- (1) Increased bedroom accommodation for the Sanatorium staff.
- (2) Recreation Room for Sanatorium patients.
- (3) Schoolroom for the Tuberculous children.
- (4) A Workshop for the Sanatorium patients.
- (5) A Recreation Room for the Domestic Staff of the Infectious Diseases Hospital.
- (6) Improved Storage accommodation.

(1) was completed at the end of the year, and good progress had been made in the erection of (2) to (6). This accommodation for various reasons had to be provided through the utilisation of Army Huts, but it is not desirable to continue the further provision of this character to any extent in the future.

With regard to future needs, I have to report that the accommodation for nearly all the activities of this Department is now proving inadequate. The accommodation at the Health Office is greatly overtaxed, and much of the work, especially of the Health Visitors and Clerical Staff, is impaired through lack of adequate

room. More facilities are also needed for the various activities connected with Maternity and Child Welfare, and the need referred to in the last Annual Report of increasing the size of the Home for the staff at the Isolation Hospital still exists. Plans are already in preparation for providing permanent increased accommodation for the Sanatorium staff, as well as for the erection of an additional Ward Pavilion for Sanatorium patients. It will be necessary at an early date to increase the number of wards at the Infectious Diseases Hospital, and I might mention that the site available for extension of this Institution, is becoming constricted, and it will be necessary to consider the future enlargement of the site itself if the Institution is to deal efficiently with the many calls upon its working. It is unfortunate that some of these things are so pressing at the present time in view of the greatly increased rates of the Borough, and the shortage of building labour and materials.

I wish to express my thanks on behalf of the Department to the many voluntary helpers who have assisted at the meetings of the Mothers' and Babies' Welcomes and Ante-Natal Clinics, and I append a list of the ladies who have so kindly and devotedly given up their time to this work.

#### VOLUNTARY HELPERS, 1919.

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##### WELCOMES.

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V.A.D.	V.A.D.	
Mrs. Corney.	Miss Rathbone.	Mrs. Daykin.
Miss Fearn.	„ Roberts.	„ Donleo.
„ Harwood.	„ Scott	„ Owen.
„ Hatton.	„ Simpson.	„ Porter.
„ Hey.	Mrs. Slaney.	„ Robinson.
Mrs. Mason.	Miss Smith.	„ Shaw.
Miss Mathers.	„ Spriggs.	„ Skirrow.
Mrs. Nadin.	„ Walpole.	„ Tuley.
	„ Wells.	

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##### ANTE-NATAL CLINICS.

Mrs. Haddon.

Mrs. Smiley.



We are again indebted to Miss Longdon and the Society of Friends for the continued use of their Meeting House in St. Helen's Street, and their crockery, etc., free of charge, for the Wednesday Welcomes. I am very much indebted to my colleagues in the Health Department for their continued co-operation during the year; not only to my medical colleagues, but also to Mr. Ford, Chief Sanitary Inspector and his staff, and especially to Mr. Daykin, Chief Clerk, and his colleagues, who have had so much of the detailed work of this Report to carry out.

I must also express my very great indebtedness to the Chairman of the Committee, who has kindly helped me with his support, and to every member of the Committee for their courtesy and kind consideration.

I am, Mrs. Hulse and Gentlemen,

Yours obediently,

ALBERT E. BRINDLEY.

P.S.—For much of the information contained in the sections of this Report dealing with Physical Features and Geology, Water Supplies and Rivers and Streams, I am indebted to Mr. W. H. Hanbury, Superintendent of Elementary Science Instruction, etc., to the Derby Education Committee, to Alderman Bemrose, Sc.D., Chairman of the Waterworks Committee, and to the Borough Surveyor. I have also to thank Mr. S. Taylor Hall for information regarding the chief industries of Derby.

# County Borough of Derby.

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## Health Committee.

COUNCILLOR A. J. EGGLESTON, MAYOR.

ALDERMAN R. LAURIE, M.D., J.P., CHAIRMAN.

COUNCILLOR G. INNES, DEPUTY-CHAIRMAN.

COUNCILLOR BERRY.

" COLLIS.

" DOMLEO.

" DRUITT, M.B.C.S.,

L.R.C.P.

COUNCILLOR FARROW.

" MRS. HULSE,

" LEVIE, F.R.C.V.S.

" NEWBOLD.

" SOUTHERN.

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## Hospital Sub-Committee

CHAIRMAN. DEPUTY-CHAIRMAN.

COUNCILLOR BERRY.

" DRUITT.

COUNCILLOR DOMLEO.

" MRS. HULSE.

COUNCILLOR NEWBOLD.

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## Housing and General Purposes Sub-Committee

CHAIRMAN. DEPUTY-CHAIRMAN.

COUNCILLOR COLLIS.

" FARROW.

COUNCILLOR LEVIE.

" NEWBOLD.

COUNCILLOR SOUTHERN.

---

## Maternity and Child Welfare Sub-Committee

CHAIRMAN DEPUTY-CHAIRMAN.

COUNCILLOR DRUITT.

" FARROW.

COUNCILLOR MRS. HULSE

Miss LONGDON. \*

MRS. WARDEN. \*

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\* Co-opted Members

## STATISTICAL SUMMARY.

Area of Borough .. .. .	5,272 Acres						
Elevation above sea level—	<table> <tr> <td>highest, Burton Road,</td><td>325ft.</td></tr> <tr> <td>lowest, The Siddals,</td><td>142 ft.</td></tr> <tr> <td>Market Place</td><td>157 ft.)</td></tr> </table>	highest, Burton Road,	325ft.	lowest, The Siddals,	142 ft.	Market Place	157 ft.)
highest, Burton Road,	325ft.						
lowest, The Siddals,	142 ft.						
Market Place	157 ft.)						
	182 ft. mean.						
Population at Census, 1911	<table> <tr> <td>{ Males .. 59,999 }</td><td></td></tr> <tr> <td>{ Females .. 63,411 }</td><td></td></tr> </table>	{ Males .. 59,999 }		{ Females .. 63,411 }			
{ Males .. 59,999 }							
{ Females .. 63,411 }							
	.. 123,410						
Number of persons per acre at Census, 1911 .. ..	23·4						
Number of Houses in Borough	<table> <tr> <td>{ inhabited 27,405 .. }</td><td></td></tr> <tr> <td>{ uninhabited 1,406 .. }</td><td></td></tr> </table>	{ inhabited 27,405 .. }		{ uninhabited 1,406 .. }			
{ inhabited 27,405 .. }							
{ uninhabited 1,406 .. }							
at Census, 1911	28,811						
Number of persons per House at Census, 1911 .. ..	4·34						
“ “ “ “ 1901 .. ..	4·62						

### 1919.

Annual Rateable Value	{ for District purposes ...	£565,862
1919	{ for Poor Rate purposes ...	£590,086
Estimated Population	{ for the death-rate ...	123,930
for 1919 ...	{ for the birth-rate ...	129,098
Number of Houses constructed during 1919 ...	One	

(Conversion of another building)

Rate per 1,000 population.

						Number.	Rate per 1,000 population.	
Marriages	...	...	...	...	...	1317	...	20·4
Births (Registered)	{ Males			1,280	}	2,522	...	19·5
	{ Females			1,242				
Births (Notified)	...	...	...	...	2,545	...	19·7	
Deaths	...	{ Males		...	800	}	...	13·1
		{ Females		...	827			
Excess of Births registered over Deaths						895		

#### DEATHS:—

Zymotic Diseases ... ..	45	0·36
Pulmonary Tuberculosis ... ..	112	0·90
Other Tuberculous Diseases ... ..	26	0·21
Respiratory Diseases ... ..	300	2·4
Under 1 year of age ... ..	223	90·4
		per 1,000 births.

Rate per 1,000 population.

#### DEATHS:—

England and Wales 13·8, 96 great towns (including London) .. .. .	13·8
148 smaller towns .. .. .	12·6
London .. .. .	13·4

# 1.—NATURAL & SOCIAL CONDITIONS

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## (1).—POPULATION.

The population of Derby at the Census of 1911 was 123,410.

For 1919 the estimated population for the death-rate was 123,930 ; for the birth-rate 129,098

## (2).—PHYSICAL FEATURES AND GEOLOGY OF DERBY.

The town of Derby is situated on the River Derwent, 127 miles north-north-west of London.

The total area of the Borough is 5,272 acres, which includes 3,457 acres, the area of the old Borough, and 1,815 acres added in November, 1901.

The soil of the Borough is composed of keuper marl, overlaid in many places by glacial and alluvial deposits. The area has been somewhat deeply trenched by the Derwent and its tributary streams, especially the Markeaton and Bramble Brooks. The eastern side of the town is below the 150 feet contour line, while a considerable area of the western portion of the Borough is above the 300 feet line. The mean elevation is 182 feet above sea level, the highest point being 325 feet at the Borough boundary on Burton Road, and the lowest 142 feet at the Siddals. The Derby Market Place is 157 feet above sea level. The ridge to the east of the Derwent, on which the Borough Isolation Hospital stands, is due to the outcrop of a bed of keuper sandstone, which dips towards the east. A wide strip of gravel overlaying the keuper clay runs into the town from the north-west. The bulk of the material appears to have been derived from the Bunter beds transported by ice and distributed in its present position by the Markeaton Brook ; the bunter approaches within two miles north of the town.

The ridge to the west of London Road, which runs at the back of the Royal Infirmary, is capped with high level valley gravel. The triangle enclosed by Kedleston Road, at the north-west of the town, the Derwent and the borough boundary contains much drift, which varies in character from a stiff boulder clay to nearly pure gravel.

The ridge on the Burton Road running to the south-west of the Borough is capped with a thick bed of coarse gravel and boulder clay. Boulder clay, with small included stones, also covers a wide area in the Normanton district. A main drain recently cut failed to reveal the full thickness of the bed.

Inter-glacial river gravel forms wide terraces from Derby through Osmaston, Alvaston and Elvaston. The Brighton Road and Osmaston district on the south-east are largely alluvial.

Millstone grit approaches the town three miles to the north-east.

Remains of Pleistocene mammalia, frequent in the river gravels of the southern counties, have been found in Derby. In 1896, Alderman Bemrose, Se.D., and Mr. R. M. Deeley obtained the greater portion of the skeleton of a hippopotamus, together with part of the breast-bone of an elephant, and of the femur of a rhinoceros, in the Derwent gravel at Allenton, immediately to the south of Derby. These bones are now in the museum at Derby.

**Rainfall.**—The average annual rainfall in Derby is approximately 25·30 inches.

### (3).—SOCIAL CONDITIONS—DERBY'S CHIEF INDUSTRIES.

**Engineering.**—Ranging from the lightest to the heaviest products. From small repetition articles to heavy marine engines, including the world's finest motor and aero engines, and the best known refrigerating systems, the heaviest railway locomotives, and many special products in machine tools, and sugar refining machinery. The largest malleable castings industries in this country, and some of the best known foundries for both extremely light and heavy grey iron castings. Electrical specialities, including motors, dynamos, wireless installations, etc.

**Wood-Working Trades.**—Including carriage building, rolling stock and specialities.

**Hosiery, Cotton and Woollen Goods**—Great majority on piece-work.

**Building Trades**



**Printing.**—Including the finest colour reproduction and poster work, through all grades to newspaper and leaflet productions.

**Chemical Trade.**—Synthetic Chemicals, acids, etc; medicinal preparations, etc.

**Breweries and Kindred Industries.**

**China Manufacturers.**—Including celebrated Derby Crown Poreelain.

**Various Trades.**—Boots and shoes, watches and cloeks, tapes, braiding, leather goods of all descriptions, elastic webbing, millinery, jewellery, paints and plasters, tanners and curriers, furniture makers, tents and tarpaulins, corsets, cycles, coopers, baskets, brieks and tiles, artificial limbs, rubber goods of all types, etc., etc.

**Glass Works.**—Manufaeture of Optical Glass, &c.

#### POOR LAW RELIEF.

I am indebted to Mr. R. Grantham, Clerk to the Guardians, for the following details as to Poor Law Relief for the year ended 31st March, 1920, the amounts being exclusive of all administrative expenses :—

	£
Indoor (actual cost of Maintenance) .. ..	15,900
Outdoor (Relief given in money £25,364)	
(Relief given in drugs      £338) .. ..	25,702
Boarded-out Children .. .. .	1,350
Total .. ..	<hr/> £42,952 <hr/>

The above figures do not include the cost of any patients in the Borough Mental Hospital.

#### (4).—VITAL STATISTICS.

**Estimated Population.**—The Registrar-General has adopted the following estimates of population for the calculation of the death-rate and birth-rate respectively of Derby for the year 1919 :—

For the death-rate (civil population) ..	123,930
For the birth-rate (total population) ..	129,098

These figures are based on the \*returns furnished under the scheme for rationing of food.

**Marriages.**—The number of marriages which were solemnized during 1919 was 1,317, this represents a rate of persons married equal to 20·4 per 1,000 of the population on the estimate of 129,098, being the highest marriage rate recorded.

### BIRTHS.

Birth-rate, 1919     ...     ...     19·5.

The Births registered during the year numbered 2,522 (187 more than the registered births of 1918). 2,545 births were notified.

			Per- centage.
Number of births attended by midwives ...	1674	...	65·7
Number of births attended by Doetors ...	355	...	14·0
Number of births attended in institutions—			
Residents     ...	399	...	15·7
Non-residents...	117	...	4·6
	<hr/> 2545 <hr/>		

**Still-births.**—The number of burials of still-born children in the Derby Cemeteries during 1919 was 108, or seven more than the previous year. The number of ordinary burials was 1,583 making a total of 1,691. The perecentage of burials of still-born children to the whole is 6·4 (see also page 86).

TABLE 1.—Relating to Births, Legitimate and Illegitimate in the various Wards.

WARD.	BIRTHS. (Registered)			Birth Rate per 1,000.	Illegitimate Births per 1,000 Births in 1919.	Total Legitimate and Illegitimate Births registered during the years 1902 to 1918.		
	Legitimate.	Illegitimate	Total			Legitimate.	Illegitimate	Illegitimate per 1,000 Births.
Abbey ...	221	13	234	23·88	56	4723	184	38
Arboretum ...	149	7	156	17·23	45	3127	88	27
Babington ...	109	8	117	14·18	68	2409	75	29
Becket ...	124	12	136	18·53	88	2496	125	48
Bridge ...	103	—	103	17·55	—	1905	64	33
Castle ...	208	16	224	29·05	76	3779	183	46
Dale ...	156	9	165	17·07	55	3157	103	29
Derwent ...	90	4	94	16·55	43	2354	73	30
Friar Gate ...	131	3	134	14·52	22	3424	102	29
King's Mead...	126	13	139	21·07	94	2783	188	64
Litchurch ...	143	8	151	17·09	53	2676	112	40
Markeaton ...	140	12	152	20·32	79	3472	149	41
Normanton ...	149	4	153	17·67	26	2740	86	22
Osmaston ...	123	1	124	17·61	8	3099	98	31
Pear Tree ...	188	4	192	19·29	21	4447	98	22
Rowditch ...	105	12	117	13·88	103	2709	124	44
Non-Residents	99	32	131	—	—	389	50	114
Year 1919 ...	2364	158	2522	19·5	63	50,989	1,902	36
						1902	—	1918
„ 1918 ...	2212	123	2335	17·6	53	48,625	1,744	35

	Males.		Females.	
Legitimate ...	1,202	...	1,162	...
Illegitimate ...	78	...	80	...
Total ...	2,522			

From the above figures it will be seen that the illegitimate births represent 6·3% of the total, as compared with 5·3% in 1918.

If, however, all the figures relating to “non-residents” are deducted, the corrected illegitimate rate is again 5·3%.

### DEATHS.

Death-rate in 1919 ... .. 13·1

The total number of Deaths registered during the year was 1,802, as compared with 2,114 in 1918; of these 1,882 deaths, 205 were strangers, and there were 30 deaths of Derby residents registered outside the Borough, making a net total of 1,627. The net death-rate therefore from all causes was 13·1, as compared with 16·1 in 1918.

#### Principal Causes of Death, 1919.—COMPARISON WITH 1918.

	<i>Deaths in 1919.</i>	<i>Increase.</i>	<i>Decrease.</i>
Bronchitis ... ..	203	53	...
Heart Disease ... ..	141	10	...
Cancer ... ..	137	8	...
Old Age ... ..	136	...	6
Influenza ... ..	123	...	249
*Premature Birth ... ..	119	16	...
Pulmonary Tuberculosis ..	112	2	...
Apoplexy and Cerebral Hæmorrhage ... ..	96	...	...
Pneumonia ... ..	77	...	59
Violence Causes (including Suicide) ... ..	31	...	12
Nephritis and Bright's Disease	30	...	4
Other Respiratory Diseases ..	20	...	9
Other Tuberculous Diseases ..	19	...	27
Measles ... ..	19	14	...
Diphtheria ... ..	10	...	4
Meningitis ... ..	11	6	...
Diarrhœa ... ..	9	...	9
Whooping Cough ... ..	6	...	16
Cirrhosis of Liver & Alcoholism	3	...	4
Scarlet Fever ... ..	1	...	...
Enteric Fever ... ..	...	...	1

\*Including Congenital Defects, and Atrophy, Debility and Marasmus.

## INQUESTS.

I am informed by the Borough Coroner (Mr. Close) that the number of Inquests held by him during the year ended December 31st, 1919, was 172, being made up of 111 held on males and 61 on females. There were no unregistered deaths in the Borough.

**Mortuary.**—P.C. Berrington (Coroner's Officer) informs me that the number of dead bodies which were received into the Mortuary during 1919 was 17 (13 males and 4 females), and that fourteen post-mortem examinations were conducted in the building during the year (10 males and 4 females).

## (A) INFANTILE MORTALITY.

The deaths of children under one year of age in Derby during 1919 numbered 228, a rate of 90·4 per 1,000 births.

The infantile mortality-rate of 90·4 per 1,000 births is the third lowest rate recorded. The average infantile mortality for the past five years has been 92·9 per 1,000 births.

Table II. gives details of the causes of death of 228 children under the age of one year.



TABLE II.—Infantile Mortality during the Year 1919.

Deaths from stated Causes at various Ages under One Year of Age.

CAUSE OF DEATH.				Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 1 Month.	1-3 Months.	3-6 Months.	6-9 Months.	9-12 Months.	Total Deaths under One Year.
Certified .. ..				71	13	15	8	107	44	26	27	24	228
i. Common Infectious Diseases.	Measles .. ..	..	..	..	..	..	..	..	..	1	1	3	5
	Scarlet Fever .. ..	..	..	..	..	..	..	..	..	..	..	..	..
	Diphtheria: Croup .. ..	..	..	..	..	..	..	..	..	..	..	..	..
	Whooping Cough .. ..	..	..	..	..	..	..	..	..	..	1	..	1
	Erysipelas .. ..	..	..	..	..	..	..	..	..	..	..	..	..
	Influenza .. ..	..	..	..	..	..	..	..	1	2	1	3	7
ii. Diarrheal Diseases.	Diarrhœa, all forms including Enteritis, Muco-enteritis, Gastro-enteritis, &c. ..			..	..	..	1	1	4	1	1	..	7
	Gastritis .. ..	..	..	..	1	..	2	3	1	..	..	1	5
				..	..	..	..	..	..	..	..	..	..
iii. Wasting Diseases.	Premature Birth .. ..	..	..	44	7	5	5	61	6	..	..	..	67
	Congenital Defects .. ..	..	..	3	1	1	..	5	3	..	..	..	8
	Injury at Birth .. ..	..	..	2	..	..	..	2	..	..	..	..	2
	Atelectasis .. ..	..	..	2	..	..	..	2	1	..	..	..	3
	Atrophy, Debility, Marasmus	..	..	14	3	4	..	21	14	5	2	2	44
iv. Tuberculous Diseases.	Tuberculous Meningitis .. ..	..	..	..	..	..	..	..	..	1	..	..	1
	Other Tuberculous Diseases .. ..	..	..	..	..	..	..	..	..	..	1	1	2
	Abdominal Tuberculosis .. ..	..	..	..	..	..	..	..	..	..	..	..	..
v. Other Causes.	Meningitis (not Tuberculous)			..	..	..	..	..	..	..	3	..	3
	Convulsions .. ..	..	..	2	..	4	..	6	2	2	1	1	12
	Bronchitis .. ..	..	..	..	..	..	..	..	4	9	7	8	28
	Pneumonia .. ..	..	..	..	..	..	..	..	2	3	2	3	10
	Suffocation, overlying .. ..	..	..	..	..	..	..	..	..	..	..	..	..
	Syphilis .. ..	..	..	1	..	1	..	2	4	1	..	1	8
	Laryngitis .. ..	..	..	..	..	..	..	..	1	..	..	..	1
	Other Causes .. ..	..	..	3	1	..	..	4	1	1	7	1	14
				71	13	15	8	107	44	26	27	24	228

Births registered { Legitimate 2,364  
 Deaths { Legitimate Infants 199  
 { Illegitimate " 29  
 Infantile Mortality =  $\frac{84 \cdot 18}{183 \cdot 54}$  per 1,000 regist'd Births

TABLE III.—The following table shews the relationship between feeding and the mortality of infants per 1,000 births from certain diseases among children born between January 1st, 1918, and December 31st, 1918.

Method of Feeding.	Breast-fed.		Mixed-fed.		Hand-fed.		All three classes.	
Number of children.	1477		518		88		2083	
Disease.	Number of deaths.	Death-rate per 1,000.	Number of deaths.	Death-rate per 1,000.	Number of deaths.	Death-rate per 1,000.	Number of deaths.	Death-rate per 1,000.
Bronchitis and Pneumonia .. ..	25	16·9	18	34·6	7	79·6	50	24·0
Diarrhœa (including Enteritis, Gastro-Enteritis and Gastritis) .. ..	5	3·4	12	23·1	..	..	17	8·2
Marasmus .. ..	5	3·4	6	11·6	3	34·1	14	6·7
Atrophy and Debility	8	5·4	9	17·4	2	22·7	19	9·1
Tabes Mesenterica .. ..	..	..	..	..	..	..	..	..
Various Abdominal Tuberculoses .. ..	3	2·0	1	1·9	..	..	4	1·9
All other Tuberculous Diseases .. ..	3	2·0	1	1·9	..	..	4	1·9
Convulsions .. ..	6	4·1	4	7·7	2	22·7	12	5·7
Dentition .. ..	..	..	..	..	..	..	..	..
Zymotic Diseases (excluding Diarrhœa) .. ..	3	2·0	1	1·9	..	..	4	1·9
All other Diseases .. ..	8	5·4	5	9·7	3	34·1	16	7·7
Totals .. ..	66	44·7	57	110·0	17	193·2	140	67·2

The following deaths have not been included in the above table for the reasons stated below:—

(1) Some congenital defect incompatible with life	...	...	7
(2) Death taking place owing to debility, no food having been given	...	...	5
(3) The child being prematurely born	...	...	64
(4) Some other cause not associated with the manner of feeding	...	...	10
Total	...	...	<u>86</u>

It will be seen then that of the 2,222 infants born during the year 1918, 226 failed to reach the age of one year.

Number of children notified during the afore-mentioned period	...	...	...	...	...	...	...	2,222
---	-----	-----	-----	-----	-----	-----	-----	-------

From the above the following deductions must be made:—

(a) On account of no visit being made, or no record being obtainable	...	...	...	139
(b) On account of no visit being made, owing to death occurring before information could be obtained	...	...	...	0
				<u>139</u>

Net total of children who were under the direct observation of the Women Inspectors	...	...	...	...	2,083
---	-----	-----	-----	-----	-------

Percentage of children breast-fed	...	...	...	...	70·9
„ „ „ wholly hand-fed	...	...	...	...	4 2
„ „ „ partly reared by hand and partly by natural means	...	...	...	...	24·9
Death-rate per 1,000 births of children breast-fed	...	...	...	...	44·7
„ „ „ „ hand-fed	...	...	...	...	193·2
„ „ „ „ partly breast-fed	...	...	...	...	1 10·0

TABLE III. (a)—Mortality per 1,000 from certain diseases among children born between January, 1908 (the year in which the Notification of Births Act was adopted), and Dec. 31st, 1918, who were breast-fed up to the age of three months, or hand-fed, or who were at first breast- and subsequently hand-fed (mixed), prior to attaining the age of three months:—

Method of Feeding.	Breast-fed.		Mixed-fed.		Hand-fed.		All three classes.	
Number of children.	22429		4316		2126		28871	
Disease.	Number of deaths.	Death-rate per 1,000.	Number of deaths.	Death-rate per 1,000.	Number of deaths.	Death-rate per 1,000.	Number of deaths.	Death-rate per 1,000.
Bronchitis and Pneumonia .. ..	273	12.2	109	25.2	53	24.9	435	15.1
Diarrhœa (including Enteritis, Gastro-Enteritis and Gastritis)	87	3.9	177	41.0	74	34.8	338	11.7
Marasmus .. ..	89	3.9	103	23.8	52	24.4	244	8.5
Atrophy and Debility	67	2.9	42	9.7	47	22.1	156	5.4
Tabes Mesenterica ..	1	0.05	1	0.2	1	0.5	3	0.1
Various Abdominal Tuberculoses ..	12	0.5	10	2.3	7	3.3	29	1.0
All other Tuberculous Diseases .. ..	21	0.9	23	5.3	16	7.5	60	2.1
Convulsions .. ..	148	6.6	65	15.1	36	16.9	249	8.6
Dentition .. ..	13	0.6	4	0.9	2	0.9	19	0.6
Zymotic Diseases .. (excluding Diarrhœa)	78	3.5	41	9.5	16	7.5	135	4.7
All other Diseases ..	111	4.9	56	13.0	35	16.4	202	7.0
Totals .. ..	900	40.1	631	146.2	339	159.4	1870	64.8

The following deaths have not been included in the above table for the reasons stated below:—

(1) Some congenital defect incompatible with life	...	...	96
(2) Death taking place owing to debility, no food having been given	...	...	126
(3) The child being prematurely born	...	...	736
(4) Some other cause not associated with the manner of feeding			171
Total			1,129

It will be seen then that of the 30,984 infants born during the period, 2,999 failed to reach the age of one year.

Number of children notified during the afore-mentioned period	...	...	...	...	...	...	30,984
---	-----	-----	-----	-----	-----	-----	--------

From the above the following deductions must be made:—

(a) On account of no visit being made, or no record being obtainable	...	...	2,021
(b) On account of no visit being made, owing to death occurring before any information could be obtained	...	...	92
			2,113

Net total of children who were under the direct observation of the Women Inspectors	...	...	28,871
Percentage of children breast-fed	...	...	77·7
„ „ „ wholly hand-fed	...	...	7·4
„ „ „ partly reared by hand and partly by natural means	...	...	14·9
Death-rate per 1,000 births of children breast-fed	...	...	40·1
„ „ „ „ hand-fed	...	...	159·4
„ „ „ „ partly breast-fed	...	...	146·2

The death-rate amongst the breast-fed children is 40·1 per 1,000 births, as compared with 159·4 per 1,000 among those hand-fed and 146·2 per 1,000 amongst those only partly breast-fed. It is important also to note that not only is this marked difference to be seen in the general death-rate, but in every classification there is the same result, the death-rate is invariably lower among the breast-fed children.



## (B) MORTALITY AT OTHER AGES.

**Age-period 1—5** (100 deaths). Rate per 1,000 of total population 0.81.

Infectious diseases were responsible for a large number of deaths, Influenza causing 12 deaths, Whooping cough 5 deaths, and Diphtheria 6. Bronchitis (13), and Pneumonia (18), were likewise very fatal diseases. Tuberculous diseases other than Pulmonary were the cause of 7 deaths. Five deaths occurred from Pulmonary Tuberculosis in this age-period. There was 1 death from Violence as the result of shock following burns.

**Age-period 5—15** (48 deaths). Rate per 1,000, 0.38.

The chief contributing causes of death were Influenza 6, Diphtheria 5, Pulmonary Tuberculosis 4, and Pneumonia 2.

**Age-period 15—25** (70 deaths). Rate per 1,000, 0.56.

Pulmonary Tuberculosis was the most dangerous ailment; 19 deaths were assignable to that cause. Influenza was second in order causing 10 deaths.

**Age-period 25—45** (211 deaths). Rate per 1,000, 1.70.

Pulmonary Tuberculosis was also the most dangerous disease in this age period, causing 53 deaths. Influenza caused 38 deaths. Heart Diseases 14, Cancer 10, and Pneumonia 6.

**Age-period 45—65** (384 deaths). Rate per 1,000, 3.09.

The chief causes of death were Cancer 63, Heart Diseases 46, Bronchitis 44, Influenza 34, Pulmonary Tuberculosis 26, and Pneumonia (all forms) 19.

**Old Age, 65 and over** (586 deaths). Rate per 1,000, 4.72.

In the declining years of life Bronchitis 112, Heart Diseases 68, Cancer 62, Pneumonia 17, and Influenza 16, were the chief causes of death.

There were 272 persons over 70 years at death.

„	„	125	„	„	80	„	„
„	„	11	„	„	90	„	„

Ninety-five was the highest age at death.

**Bronchitis and Pneumonia** caused 280 of the 1,627 deaths registered during 1919, 203 deaths being due to Bronchitis, and 77 to Pneumonia. Bronchitis, as in five out of the six preceding years, heads the list of causes of death during 1919, Heart Diseases with 141 deaths coming next in order. (For age distribution, see Appendix II.).

**Influenza.**—The total number of deaths during the year was 123. The following Tables give particulars of deaths occurring in each week of the year, also particulars in age and sex groups. It will be seen that while no ages were exempt, the highest mortality was between the ages of 20 and 40, and the lowest between 10 and 20.

Deaths from Influenza in each week in 1919.

Jan	4	...	1	July	5	...	—
	11	...	—		12	...	—
	18	...	2		19	...	—
	25	...	1		26	...	—
Feb.	1	...	1	Aug.	2	...	—
	8	...	1		9	...	—
	15	...	13		16	...	—
	22	...	29		23	...	—
Mar.	1	...	21		30	...	—
	8	...	15	Sept.	6	...	—
	15	...	11		13	...	—
	22	...	9		20	...	—
	29	...	6		27	...	—
April	5	...	4	Oct.	4	...	—
	12	...	—		11	...	—
	19	...	—		18	...	1
	26	...	—		25	...	1
May	3	...	2	Nov.	1	...	—
	10	...	—		8	...	—
	17	...	—		15	...	1
	24	...	—		22	...	—
	31	...	1		29	...	—
June	7	...	—	Dec.	6	...	—
	14	...	—		13	...	—
	21	...	1		20	...	—
	28	...	1		27	...	—
					31	...	—
							122
				Inward Transfer			1
							123

## DEATHS OF MALES AND FEMALES IN AGE GROUPS.

Age Groups.	Males.	Females.	Totals.	Age Groups.	Males.	Females	Totals.
Under 1	6	1	7	Under 1	6	1	7
1—2	3	2	5				
2—5	5	2	7				
5—10	2	3	5	1—10	10	7	17
10—15	..	1	1				
15—20	..	2	2	10—20	..	3	3
20—25	3	5	8				
25—30	5	6	11	20—30	8	11	19
30—35	7	7	14				
35—40	2	7	9	30—40	9	14	23
40—45	5	..	5				
45—55	9	9	18	40—50	8	4	12
55—65	9	6	15	50—60	10	7	17
65—75	6	4	10	60—70	8	6	14
75—85	1	5	6	70—80	4	7	11
	63	60	123		63	60	123

**Cancer and Malignant Disease.**—Cancer or some variety of malignant disease was held responsible for 137 deaths, as compared with 129 in 1918. There were no deaths from this disease below the age of 15 years, 2 between 15 and 25, 10 between 25 and 45, 63 between 45 and 65, and 62 at ages 65 and upwards. Friar Gate Ward, with 16 deaths shewed the highest Ward mortality. In Abbey, Derwent, and Osmaston Wards there were only 3 deaths each from this disease. *Part of the body affected* : Some portion of the *Digestive System* was affected in 69 of the cases (the liver being affected in 12 instances and the stomach in 15, whilst other parts of the intestines were affected in 20). The *Reproductive* and associated organs were affected in 45 of the cases, the womb being affected in 19 cases, and the breast in 13.

**Violence.**—There were 31 deaths attributed to Violencee (including 4 suicides), as compared with 43 in 1918. Four of the deaths from Violence were due to burns and scalds, and 7 due to drowning. Accidents accounted for most of the deaths under this heading, two deaths being caused by railway accidents. All the cases of self-inflicted death occurred in persons over the age of 25.

**Maternal Mortality.**—There were 16 deaths associated with pregnancy and parturition, certified as follows :—

Puerperal Fever	..	..	..	..	5
Eclampsia	..	..	..	..	2
Pulmonary Embolism	..	..	..	..	2
Abortion	..	..	..	..	2
Miscarriage	..	..	..	..	2
Concealed Accidental Hæmorrhage	..	..			1
Childbirth (post-partum hæmorrhage)				..	1
Confinement, Syncope	..	..	..		1

**Other Diseases.**—A summary of the deaths from *Heart Disease*, *Alcoholism*, and *Cirrhosis of the Liver*, etc., is given in Appendix II. Of the 119 deaths due to Prematurity, 67 were due to premature birth, 44 to atrophy, debility and marasmus, and 8 to congenital defects.

# DISTRICT MORTALITY RATES.

TABLE IV.—Population, Density, Deaths, and certain Death Rates in the various Wards of the Borough of Derby for the Year 1919.

W ARDS.	Population in 1911.	Estimated population in 1919. (civil)	Acreage.	Density in persons per acre.	Total Deaths.	Death-rate per 1,000 living.	Deaths from seven principal Zymotic Diseases.	Zymotic death rate.	Deaths from Respiratory Diseases exclusive of Pulmonary Tuberculosis.	Respiratory death rate.	Deaths from Pulmonary Tuberculosis.	Pulmonary Tuberculosis death rate.	Number of infants under 1 year.	Deaths of infants under 1 yr. of age per 1,000 births (registered)
Abbey	9,381	9,405	285	33	126	13.4	5	0.5	23	2.4	12	1.27	25	107
Arboretum	8,662	8,688	122	71	114	13.1	4	0.5	16	1.8	7	0.80	14	89
Babington	7,890	7,918	134	59	116	14.6	4	0.5	20	2.5	10	1.26	10	85
Becket	6,999	7,044	102	69	121	17.1	2	0.3	32	4.5	9	1.27	17	125
Bridge	5,603	5,631	229	25	78	13.8	...	0.0	11	1.9	7	1.24	6	58
Castle	7,377	7,402	112	66	155	20.9	3	0.4	37	4.9	10	1.35	26	116
Dale	9,225	9,279	269	35	100	10.8	4	0.4	15	1.6	5	0.54	13	79
Derwent	5,414	5,450	907	6	58	10.6	3	0.5	10	1.8	2	0.36	10	106
Friar Gate	8,826	8,856	176	50	93	10.5	1	0.1	15	1.7	6	0.68	14	104
King's Mead	6,310	6,331	90	70	110	17.3	3	0.5	23	3.6	9	1.42	13	93
Litchurch	8,003	8,029	462	17	107	13.3	1	0.1	17	2.1	5	0.62	14	92
Markaton	7,155	7,181	151	47	89	12.4	4	0.5	22	3.0	4	0.55	11	72
Normanton	8,269	8,312	106	78	85	10.2	3	0.4	11	1.3	6	0.72	12	78
Osmaston	6,737	6,750	1,381	5	77	11.4	3	0.4	12	1.8	6	0.88	15	121
Pear Tree	9,528	9,560	392	24	113	11.8	2	0.2	23	2.4	9	0.94	20	104
Rowditch	8,031	8,094	354	23	85	10.5	3	0.4	13	1.6	5	0.62	8	68
*Institutions	...	...	...	...	729	...	26	...	98	...	52	...	95	...
Non-Residents	...	...	...	...	188	...	3	...	16	...	11	...	25	...
Transferred by Reg. Gen. (full address not supplied)	...	...	...	...	...	...	...	...	...	...	...	...	...	...
†WholeBorough	123,410	123,930	5,272	23	1,627	13.1	45	0.36	300	2.4	112	0.90	228	90.4

\* The deaths in Institutions have been relegated to the various Wards. † Excluding Non-Residents.



## II.—SANITARY CIRCUMSTANCES.

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### WATER SUPPLY.

The public supply of Derby is two-fold.

(a) The old supply derived principally from filter tunnels or culverts laid in the gravels and shales alongside the River Derwent, in the adjacent Parishes of Little Eaton and Allestree. Details of this supply have been given in the Annual Report for the Borough for 1908.

(b) The more recent supply, in addition to the above, is that obtained under the Derwent Valley Water Scheme. Under this joint scheme, the upper parts of the area, drained by the River Derwent, have been bought for the purpose of supplying water to Sheffield, Derby, Nottingham and Leicester, and to the County of Derby. The Rivers Derwent and Ashop lie in this area, which contains 31,946 acres, or 50 square miles of land, and lies at a height of between 500 and 2,000 feet above sea level. The rainfall varies from 38" in the southern part to 60" in the more elevated regions, and the average for the whole is about 49".

The Derwent Valley Water Board was established in 1899, in order to reconcile the claims of the authorities of the four large towns and the county above-mentioned.

The method of obtaining the water is by making five large reservoirs, three on the river Derwent (the Howden, Derwent and Bamford reservoirs respectively), and two on the River Ashop (the Haglee and Ashopton reservoirs). It is estimated that the Derwent Reservoir will have an area of 594 acres, and contains over 6,000,000,000 gallons of water, while those in the Ashop Valley will have an area of 319 acres, and hold more than 3,500,000,000 gallons of water.

The scheme includes the making of about 100 miles of aqueduct for distributing the water, about 20 acres of filter beds at Bamford, and a service reservoir at Ambergate, the work being carried out in three parts or instalments. The first portion, consisting of the Howden and Derwent Reservoirs, commenced in 1902, and were

estimated to deliver twelve or thirteen million gallons of water a day. The reservoirs are formed by building large dams of sandstone and concrete across the valley. The Howden dam is 1,080 feet long and 117 feet high, while the Derwent dam is 1,110 feet long and 114 feet high. The storage capacity of these two reservoirs is about 4,050,000,000 gallons.

The Bamford Reservoir requires a dam of 1,950 feet long and 95 feet high. The stone used in making the dams is millstone grit obtained at a quarry at Grindleford on the Midland Railway. The foundation of the Howden and Derwent dams are in the shales and sandstones. These beds of rock are much contorted and crushed, and the ground was not watertight. It was therefore necessary to make a water-tight "curtain"; that is, a six feet width of concrete beneath the dam for its whole length, and into the hills at each side. The "curtain" in the Derwent dam extends 55 feet down below the base of the dam, so that, although the dam is only 114 feet high, the distance from the foundations to the "curtain" walls at the top of the dam is 212 feet. The main aqueduct extends from Howden to Ambergate reservoir, and is 30 miles in length. The Ambergate reservoir, which is for regulating the supply to the towns, holds 30,000,000 gallons of water, and the water is distributed from this reservoir by means of pipes to Derby and the County of Derby, and to Nottingham and Leicester. The supply of water from the Derwent Valley was commenced on September 10th, 1912, and admitted to the reservoirs of the old supply at Little Eaton; the mixed water being then delivered to the inhabitants of Derby.

**Water Supply to the Borough.** During the 12 months ended March 31st, 1920, 1,333,457,000 gallons of water were supplied to Derby from the public supply, about 27·81 gallons per head of the estimated population. Of the total quantity supplied 89 per cent. was the Derwent Valley supply.

#### PRIVATE WATER SUPPLIES.

Water samples from 5 different sources were examined during the year by the Borough Analyst. Extracts from the respective reports of the latter are given in each case.

## (1) From pump at Cemetery :—

“ The analytical results show evidence of the presence of  
 “ only a small proportion of organic matter, and there is no  
 “ definite indication of the occurrence of pollution by sewage  
 “ material.”

“ As a result of chemical analysis I am therefore of opinion  
 “ that this water is of fairly satisfactory quality for use for  
 “ drinking purposes in its present condition.”

“ It is distinctly hard.”

## (2) Sample from well in Hollis Street, Derby :—

“ The sample was slightly turbid, and was greenish yellow  
 “ in colour. Analytical results show the water to have under-  
 “ gone pollution doubtless of animal origin.”

“ I am therefore of opinion that this water cannot be regarded  
 “ as safe for use for drinking purposes.”

“ The sample was free from lead.”

Town's water was laid on and the well closed as a supply for drinking purposes.

## (3) Sample of water from a well in Hall Street, Derby :—

“ In appearance the sample was fairly clean and of good  
 “ colour.”

“ The analytical results show the water to have been polluted  
 “ to a considerable extent with organic matter, which is  
 “ doubtless of animal origin.”

“ I am therefore of opinion that the water cannot be regarded  
 “ as safe for use for drinking purposes.”

“ The sample was free from lead.”

In this case also town's water was laid on, and the use of the well for drinking purposes discontinued.

## (4) Sample of water taken from a pump in Baker Street, Derby :—

“ The sample was clear, and slightly yellowish green in  
 “ colour.”

“ The analytical results show evidence of the water having  
 “ undergone pollution with organic matter, doubtless of animal  
 “ origin.”

“ The extent of the pollution, in my opinion, is not sufficient  
 “ to cause the water to be deemed as unfit for use, but in its

“ present condition this water must be regarded with grave  
“ suspicion.”

Town's water was laid on in this case.

It may be mentioned that in the three supplies (2), (3), and (4), town's water was laid on as a result of preliminary action only, further steps not being necessary.

These three wells were all situated in the Alvaston district of the Borough.

(5) From well to Swiss Cottage, Osmaston Park, Derby :—

“ The sample was fairly clear, and slightly yellowish in  
“ colour.”

“ The analytical results show evidence of the water having  
“ undergone pollution to a large extent with organic matter,  
“ which is doubtless of animal origin.”

“ I am therefore of opinion, as a result of chemical analysis,  
“ that this water is unfit for use for drinking purposes.”

“ The hardness is unduly high.”

In this case the hardness was

Temporary	15·88	parts per 100,000.
Permanent	45·40	do.
Total hardness	61·28	do.

Negotiations for the provision of town's water were being carried on at the end of the year.

## RIVERS AND STREAMS.

**River.** The Derwent, the most important river in Derbyshire, with a drainage area of 290,000 acres and a length of 65 miles, enters at the northern boundary of the town, and proceeds due south until it expands into a large basin just above the Cattle Market, proceeding in a south-easterly direction, but following a very tortuous course as it approaches the borough boundary. The greater part of the town is situated to the west, south-west, south and south-east of the river. The only portions of the Borough on the east and northerly banks of the river are Derwent Ward and a portion of Osmaston Ward.

**Streams.**—The tributaries of the River Derwent are chiefly three, the principal one being the Markeaton Brook, which joins



the Derwent near the Cattle Market. The other brooks are the Bramble Brook which runs from the west, and the Littlecover Brook which runs from the south-west boundary of the Borough towards the centre of the town. These two brooks are collected together into a flood culvert, which was made in the centre of the town in the year 1879. Their waters are discharged into the stream known as the Mill Fleam, a branch of the River Derwent which again joins the Derwent lower down in its course. The entrance of these streams into the Mill Fleam takes place near the Cattle Market and Bass's Recreation Ground. Practically the whole of the Bramble Brook, and all Littlecover Brook, except about a quarter of a mile, and the Markeaton Brook except about half a mile, have been culverted. The cleansing of these culverts has to be carried out periodically by the Borough Surveyor, especially in the lower reaches.

**Pollution.**—Complaints of pollution of these streams were at one time somewhat frequent; pollution of the Markeaton Brook by discharges from a Yeast works caused a good deal of trouble a few years ago, a growth of spongy gelatinous material on the bed of the stream as well as a frothy scum on the surface causing a good deal of obstruction, as well as effluvium. The owners of the works in question, however, took such steps as to completely obviate this nuisance.

With regard to the Bramble Brook, the chief pollution of this brook was from a large and important leather works. Complaints of pollution by pieces of skin, lime and vegetable matter have at times been rather frequent. The firm complained of, however, have gone to considerable trouble and expense in putting down settling tanks, and taking other steps to arrest the flow of these solids into the stream with the result that comparatively few complaints were received during 1919. Some of these solids consisted of vegetable matter, *e.g.*, sumac, which is, I believe, innocuous to fish, although not a desirable constituent of streams.

There has been no evidence of serious pollution of the Littlecover Brook in recent years.

#### DRAINAGE AND SEWERAGE.

An account of the main drainage of the Borough, and the disposal of sewage was given in the Annual Report for the year 1909.



## SANITARY ACCOMMODATION.

(Approximate Figures.)

At end of year.	W.C.'s.		Trough W.C.'s.			Tub Closets.	Ash Recep- tacles.	Dry Ashpits.	Privies & Ashpits.		Privies & Cesspools.		Inhabited Houses (esti- mated).
	Ordinary.	Hand Flushed.	Burman- toft.	Tipper or Syphon.	Hand Flushed.				Privies & Ashpits.		Privies & Cesspools.		
1901	13,769	91	105	192	40	4,723	15,351	1,311	5,645	2,722	1,147	887	26,960
1909	21,133	91	213	187	42	3,884	21,827	1,069	2,570	926	641	534	29,684
1919	24,140	90	273	169	42	3,247	24,197	966	413	142	497	442	30,239

During the year 1919, 76 Privies were converted into Water Closets.

### REFUSE COLLECTION AND DISPOSAL.

This work is carried out under the direction of the Borough Surveyor (Mr. John Ward), to whom I am obliged for the following particulars relating to the work done in 1919 :—

#### PRIVY AND ASHPIT CLEANSING.

Night-work—Privies Cleansed	..	..	..	..	2,036
„ Ashpits Cleansed	..	..	..	..	1,353
„ Privy Cesspools Cleansed			..	..	168
Day-work—Dry Ashpits Cleansed	..	..	..	..	331

#### REFUSE COLLECTED.

Night-work—Loads, Exereta only	..	..	..	3,149
„ „ Ashes and Exereta	..	..	..	1,208
„ „ Ashes only	..	..	..	1,196
Day-work— „ Ashes, etc.	..	..	..	24,501
Offal and Trade Refuse carted by Producers—Loads	..			2,046
				<hr/> 32,100 <hr/>

#### REFUSE DISPOSAL.

Disposed of as Manure—By Boats, 168 loads.

By Customers' own carts, 448 tons, 16 cwt.

Delivered to Farmers from pits, 761 cart loads.

Deposited on Tips, 10,964 cart loads.

Burned in the Destructors, 17,503 tons, 11 cwt.

Extracted from Refuse and Sold, 88 tons, 9 cwt., 3 qrs. old tins and iron.

7 tons, 1 cwt., 3 qrs., waste paper.

During the year 119 moveable ashbins were provided. This number includes substitutions for fixed receptacles.

The following is a record of work carried out under the direction of Mr. John Ward, the Borough Surveyor :—

#### MANHOLES CONSTRUCTED DURING THE YEAR 1919.

Back Sitwell Street	..	2	Sacheverel Street	..	1
London Road	..	2			—
			Total	..	5

## SEWERS CLEANED OUT DURING THE YEAR 1919.

Yates Street	..	..	6	Baek Sitwell Street	..	5
Vale Street	..	..	4	Saheverel Street	..	7
Roe Street	..	..	3	London Road	..	12
Fox Street	..	..	1			—
Stuart Street	..	..	1	Loads of Silt	..	39
						—

## MANHOLES CLEANED OUT DURING THE YEAR 1919.

Abbey Street	..	..	2	Leman Street	..	1
Yates Street	..	..	3			—
Baek Sitwell Street	..	..	4	Loads	..	10
						—

This list is, of course, in addition to the Manholes on the Sewers cleaned out.

## NEW SEWERS LAID DURING THE YEAR 1919.

Nil.

## WATER USED DURING THE YEAR 1919.

						GALLONS.
Sewer Flushing	..	..	..	..	..	1,294,200
Court Flushing	..	..	..	..	..	451,875
Street Watering	..	..	..	..	..	158,000
Steam Rolling	..	..	..	..	..	455,050
Cabstands, Bridges, and Wood Paving	..	..		..	..	17,550
Footways	..	..	..	..	..	82,700
						—
				Total		2,459,375
						—

## SANITARY INSPECTION OF DISTRICT.

The following Tables shew (1) action taken with regard to defects or nuisances discovered; and (2) the result of such action. They illustrate the large amount of work carried out by the male inspectors under the capable direction of Mr. Ford, the Chief Inspector :—

## NOTICES SERVED.

					A	B	C	X	Total.
To remove offensive accumulations	..	..	..	..	5	29	2	..	36
„ Animals	..	..	..	..	12	7	7	..	26
Ashpits	..	To demolish	..	..	..	..	..	..	..
	..	„ repair	..	..	1	..	..	..	1
Drains	..	„ disconnect from sinks	..	..	..	1	1	..	2
	..	„ trap inlets and ventilate soil pipes	..	..	..	..	2	..	2
	..	„ remove from inside houses	..	..	..	1	3	..	4
	..	„ cleanse, repair, reconstruct, or provide soil pipes, chambers or spouting	..	..	214	139	227	..	580
Houses	..	„ cleanse and limewash cellars	..	..	3	7	4	..	14
	..	„ cleanse	..	..	16	33	19	..	68
	..	„ damp course and make dry	..	..	18	8	8	..	34
	..	„ provide dustbins	..	..	21	15	54	..	90
	..	„ prevent overcrowding	..	..	1	5	..	..	6
	..	„ repair paving of yards and passages	..	..	13	14	8	..	35
	..	„ repair roofs, floors, walls, &c.	..	..	89	117	130	..	336
	..	„ ventilate rooms	..	..	..	2	..	..	2
	..	„ provide, trap, &c., sinks and waste pipes	..	..	21	..	3	..	24
Manure	..	„ remove accumulations	..	..	7	4	7	..	18
	..	„ cleanse, repair, and demolish pits or cesspools	..	..	1	..	..	..	1
Privies	..	„ cleanse, repair, or provide new tubs	..	..	45	17	8	..	70
	..	„ convert to W.C.'s	..	..	20	10	26	..	56
	..	„ demolish	..	..	..	..	6	..	6
Urinals	..	„ remove	..	..	..	1	..	..	1
Water	..	„ fill in disused well	..	..	1	2	3	..	6
	..	„ cleanse or repair soft water pumps or tanks	..	..	6	6	10	..	22
	..	„ provide town or repair service pipes	..	..	25	12	9	..	46
W.C.'s	..	„ additional	..	..	..	1	2	..	3
	..	„ repair or cleanse fittings	..	..	45	23	48	..	116
	..	„ lay on flushing water	..	..	..	1	4	..	5
	..	„ repair, re-build, or cleanse	..	..	2	11	5	..	18
Bakehouses	..	Contraventions	..	..	..	..	..	65	65
Common Lodging Houses	..	do.	..	..	..	..	..	181	181
Dairies, Cowsheds & Milkshops	..	do.	..	..	..	..	..	125	125
Factories & Workshops	..	do.	..	..	27	34	20	1	82
Houses Let in Lodgings	..	do.	..	..	..	..	..	224	224
Smoke Nuisances	..	..	..	..	..	..	2	..	2
Offensive Trades	..	..	..	..	..	..	..	5	5
					593	500	618	601	2312

## NUISANCES ABATED

						A	B	C	X	Total.
Accumulations (offensive) removed	...	..				3	33	6	...	42
Animals ... Removed	...	...	...	...	...	11	11	13	...	35
Ashpits ... Demolished	...	...	...	...	...	...	...	15	...	15
	Repaired	...	...	...	...	11	...	...	...	11
Drains ... Brick replaced with pipes	...	...	...	...	...	...	...	5	...	5
	Disconnected from sinks	...	...	...	...	...	1	...	...	1
	Inlets trapped and soil pipes ventilated	...	...	...	...	7	37	96	...	140
	Removed from inside houses...	...	...	...	...	2	...	2	...	4
	Soil pipes, chambers or spouting cleansed, repaired, reconstructed, or provided	...	...	...	...	447	451	658	...	1556
Houses ... Cellars cleansed and limewashed	...	...	...	...	...	...	22	21	...	43
	Cellar openings repaired	...	...	...	...	4	...	1	...	5
	Cleansed	...	...	...	...	23	27	25	...	75
	Damp-Coursed and made Dry	...	...	...	...	18	5	8	...	31
	Ashbins provided	...	...	...	...	26	14	79	...	119
	Overcrowding prevented	...	...	...	...	1	5	3	...	9
	Paving of Yards & Passages Repaired	...	...	...	...	76	55	61	...	192
	,, Roofs, Floors, Walls, &c.	...	...	...	...	178	144	162	...	484
	Rooms ventilated	...	...	...	...	..	1	...	...	1
	Sinks and waste pipes provided, trapped, &c.	...	...	...	...	22	18	26	...	66
Manure ... Accumulations removed	...	...	...	...	...	7	4	4	...	15
	Pits or cesspools, cleansed, repaired, or demolished	...	...	...	...	3	..	...	...	3
Privies ... Cleansed, repaired or new tubs provided	...	...	...	...	...	60	15	17	...	92
	Converted to W.C.'s	...	...	...	...	19	7	50	...	76
	Demolished	...	...	...	...	...	...	19	...	19
Stables ... Paved, drained or ventilated...	...	...	...	...	...	4	...	...	...	4
Urinals ... Erected, repaired or reconstructed	...	...	...	...	...	...	1	...	...	1
Water ... Disused wells filled in...	...	...	...	...	...	10	3	3	...	16
	Soft water pumps or tanks cleansed or repaired	...	...	...	...	17	26	7	...	50
	Town provided or service pipes repaired	...	...	...	...	13	58	11	...	82
W.C.'s ... Additional provided	...	...	...	...	...	5	7	3	...	15
	Fittings repaired or cleansed...	...	...	...	...	34	68	98	..	200
	Flushing water laid on	...	...	...	...	3	9	6	...	18
	Repaired, re-built or cleansed	...	...	...	...	12	29	19	...	60
Bakehouses	(Contraventions)	...	...	...	...	...	...	...	66	66
Common Lodging-houses	do.	...	...	...	...	...	...	...	180	180
Dairies, Cowsheds and Milkshops	do.	...	...	...	...	...	...	...	123	123
Factories and Workshops	do.	...	...	...	...	35	30	17	1	83
Houses Let in Lodgings	do.	...	...	...	...	...	...	...	219	219
Smoke Nuisances	...	...	...	...	...	...	...	2	...	2
Offensive Trades	...	...	...	...	...	...	...	...	4	4
						1051	1081	1437	593	4162
Drain traps fixed	...	...	...	...	...	102	45	154	...	301
Yards of drain laid	...	...	...	...	...	787	275	722	...	1784



The letters A, B, and C, refer to the three districts into which the town is divided for inspectorial purposes; the letter X refers to work carried out by a special inspector.

**Legal Action Taken.** Nine legal notices were served during the year, and twelve legal notices were complied with, including five from the previous year. Of the remaining two instances, in one case the work is proceeding, but is not yet completed, while in the other case the matter is in abeyance, the house affected being now unoccupied.

In one case reported to the Committee in November, 1918, and in eight cases reported during 1919, it was not found necessary to serve notices, the owners undertaking to carry out the works required. This has been done in 5 cases; in another, the work is nearing completion, and in the remaining three cases, preliminary arrangements are in hand, but the work is not yet commenced.

**Informal Notices**—In addition to the above legal or statutory notices, 2,312 informal notices were served.

**Complaints affecting other Departments.** — Various complaints are made at the Health Offices which concern other departments, such as nuisance from street gullies or ventilators, and matters relating to water supply, and these, to the number of 41, have been handed on to the Borough Surveyor.

### COMMON LODGING-HOUSES.

Houses on register at beginning of year	...	...	...	14
Added during the year	...	...	...	1
Closed during the year	...	...	...	1
On register at end of year	...	...	...	14
Number of rooms registered for sleeping	...	...	...	102
Number of lodgers provided for—adults	...	...	...	533
children	...	...	...	23
Visits of inspection (day)	...	677		
(night)		15		
Notices and cautions given in respect of breaches of the Acts				
and Bye-laws	...	...	...	181
Notices and cautions complied with	...	...	...	180

One old house was closed owing to the premises being purchased for an extension of works, and another house was taken over by the keeper, and registration granted after the required alterations were carried out.

No serious infringements of the Acts or Byelaws were met with, nor was any case of overcrowding discovered during the nightly visits.

### HOUSES LET IN LODGINGS.

On register at beginning of year	...	...	...	...	34
Added during the year	...	...	...	...	1
Closed during the year	...	...	...	...	1
On register at end of year	...	...	...	...	34

These houses contain 157 rooms and have accommodation for 234 adults and 66 children, living and sleeping, or for 297 adults and 89 children sleeping only.

Visits of inspection (day)	...	1464
(night)	...	31

Notices and cautions given to the landlords and lodgers for various offences under the Bye-laws	...	...	...	224				
Notices and cautions (including 5 from previous year) complied with	..	..	..	..	..	..	..	219

No serious infringements of the Byelaws were met with, nor was any case of overcrowding found during the nightly visits.

### OFFENSIVE TRADES.

On register at beginning* of year	...	...	...	...	18
On register at end of year	...	...	...	...	18
Factories	...	...	...	...	2
Workshops	...	...	...	...	16
Inspector's visits	...	...	...	96	
Notices served	...	...	...	5	
Defects remedied	...	...	...	4	

### List of Offensive Trades in the Borough.

Bone Boiling	..	..	..	..	1
Bone Calcining	..	..	..	..	1
Gut Scraping	..	..	..	..	1
Hide and Skin Markets			..	..	2
Skin Curing	..	..	..	..	2
Soap Boiling	..	..	..	..	1
Tallow Melting	..	..	..	..	1
Tripe Boiling	..	..	..	..	5
Varnish Making			..	..	1
Marine Stores	..	..	..	..	3
Total					18

### PIG-KEEPING.

(Temporary abatement of Nuisance Bye-laws).

Applications received	...	...	...	...	...	2
„ granted	...	...	...	...	...	0
„ refused	...	...	...	...	...	2
„ withdrawn	...	...	...	...	...	0

In one of these applications pigs were already being kept, but on permission being refused, notice was served to remove the pigs, which was done. Several applications were received for a *continuation* of the permission to keep pigs, but owing to the food question having become less acute, the Health Committee, at their meeting held on the 19th May, 1919, discussed the advisability of granting further permission to keep pigs on premises in contravention of the provisions of the Nuisance Byelaws. It was decided that a further period of one year be allowed, after which the Bye-laws would be again enforced. All the keepers who had received permission were written to, to this effect.

The period terminates on the 31st May, 1920.

### MANURE PITS.

A list of manure pits was obtained during the year, and several accumulations found were dealt with and removed. Subsequent visits were paid during the summer months and further accumulations prevented as far as possible. To endeavour to reduce the nuisance arising from flies, 46 heaps were treated for the destruction of larvæ.

## FACTORIES AND WORKSHOPS.

The following are the tables of action and work done, which are required to be forwarded to the Secretary of State :—

### 1.—INSPECTIONS.

Including inspections made by Sanitary Inspectors or Inspectors of Nuisances.

PREMISES.	NUMBER OF			
	INSPEC- TIONS.	WRITTEN NOTICES.	VERBAL NOTICES.	PROSE- CUTIONS.
Factories (including Factory Laundries)	263	23	6	0
Workshops (including Workshop Laundries) .. ..	895	52	69	0
Totals ... ..	1,158	75	75	0

### 2.—DEFECTS FOUND.

Particulars.	Number of Defects			Number of Prosecu- tions.
	Found	Remedied.	Referred to H.M. Inspector	
Nuisances under the P.H. Acts—				
Want of Cleanliness ..	34	33	0	0
Want of Ventilation ..	0	0	0	0
Overcrowding .. ..	1	1	0	0
Want of Drainage of floors	1	1	0	0
Other Nuisances .. ..	11	9	0	0
Sanitary Accommodation—				
Insufficient .. ..	7	7	0	0
Unsuitable or Defective ..	31	31	0	0
Not separate for sexes ..	8	8	0	0
Offences under the F. & W. Act—				
Illegal occupation of un- derground bakehouse (S. 101) .. .. ..	0	0	0	0
Breach of Special Sanitary requirements for Bake- houses (SS. 97 to 100)	65	66	0	0
Other Offences .. ..	0	0	0	0
Totals .. ..	157	155	0	0

### 3.—HOME WORK.

NATURE OF WORK.	OUTWORKERS' LISTS, SECTION 107.										OUTWORK IN UNWHOLESOME PREMISES, SECTION 108.				OUTWORK IN INFECTED PREMISES, SECTIONS 109, 110.					
	Lists received from Employers.							Prosecutions.			Number of Inspections of Outworkers' premises.		Instances.		Notices served.		Prosecutions.		Orders made (S. 110).	
	Twice in the year.		Once in the year.																	
	a Lists.	a Outworkers.	a Lists.	a Outworkers.	a Lists.	a Outworkers.	a Lists.	a Outworkers.	Numbers of Addresses of Outworkers received from other Councils.	Numbers of Addresses of Outworkers forwarded to other Councils.	Notices served on Occupiers as to keeping or sending Lists.	Failing to keep or permit inspection of Lists.	Failing to send Lists.	Instances.	Prosecutions.	Instances.	Prosecutions	Instances made	Prosecutions	
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)		
Making Wearing Apparel	70	2	537	5	..	10	3	5	..	..	..	142	3	2	..	1	..	..	..	
Making Lace and Net ..	2	..	142	2	..	24	7	54	..	..	..	186	3	3	..	6	..	..	..	
Making Curtain Hangings	2	..	75	1	..	7	..	2	..	..	..	56	1	1	..	2	..	..	..	
Surgical Bandage Making	2	..	19	..	..	..	..	..	..	..	..	11	..	..	..	1	..	..	..	
Toy Stuffing, etc.	2	..	14	..	..	..	..	..	..	..	..	9	..	..	..	..	..	..	..	
Paper Bags, Boxes, etc.	..	..	..	1	..	3	..	..	..	..	..	2	..	..	..	..	..	..	..	
Brush Making ..	..	..	..	1	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	
Total ..	78	2	787	10	..	45	10	61	..	..	..	407	7	6	..	10	..	..	..	

The figures in columns 2, 3 and 4 are the *total* number of lists (received from employers who sent them both in February and August as required by the Act) and of the entries of names of outworkers in those lists. They are, therefore, double of the number of such employers and (approximately) double of the number of individual outworkers whose names are given, since in the February and August lists of the same employer the same outworkers' name is often repeated.



#### 4.—REGISTERED WORKSHOPS.

Workshops	...	...	...	...	...	...	...	311
Bakehouses	...	...	...	...	...	...	...	53
								<hr/>
Total number of Workshops on Register	...	...	...	...	...	...	...	364
								<hr/>

#### 5.—OTHER MATTERS.

Notified to H.M. Inspector of Factories :—

Failure to affix Abstract (S. 133)	...	...	0		
Action taken in matters referred to H.M. Inspector as remediable under the Public Health Acts but not under the Factory & Workshops Act (S. 5)	{	Notified by H.M. In- spector	...	...	72
		Reports sent to H.M. Inspector	...	...	71
Other	...	...	...	...	0

Underground Bakehouse (S. 101) :

Certificates granted during the year	...	...	...	...	...	...	...	0
In use at the end of the year	...	...	...	...	...	...	...	1

#### SMOKE OBSERVATIONS.

Fifty-five smoke observations were made during the year.

Two preliminary notices were served to abate smoke nuisances and both were complied with.

In one instance, where a legal notice served in 1918 had not been complied with, a summons was taken out, and an order was made by the magistrates to abate the nuisance. Certain works have been carried out and an improvement is noticeable, but owing to the delivery of certain mechanical appliances being retarded by the strike of moulders it has not been possible up to the present to complete the whole of the works necessary to ensure a total abatement of the nuisance.

## CANAL BOATS.

Boats inspected	...	...	...	...	34
Visits to canal	...	...	...	...	102

**Infringements of Acts and Regulations:—**

Absence of marking	..	..	..	1 instance.
Overcrowding	..	..	..	3 instances
Painting	..	..	..	2 „
Boats found in bad repair	..	..	..	3 „

**Legal Proceedings—None**

**Other steps taken**—Eight complaint forms sent, and one verbal notice given.

*Number of Boats on the Derby Register at end of 1919 :—*

(a) No. of boats believed to be in use or available	..	5
No. propelled by motor	.. .. .	0
(b) No. of boats that cannot be traced	.. .. .	8
No. of boats traced and found to be broken up.		
Removed from Register		5
No. of boats traced and found to have been re-registered with other Authorities and removed from Derby Register	.. .. .	4

*No. of boats registered during 1919 :—*

(a) Motor propelled	..	0
(b) Horse drawn	..	1 (transferred from Ilkeston Register).

A revision has recently been made of the Canal Boats Register, resulting in the drastic reduction in the number of boats registered. It will be observed from the above report that 14 boats could be traced. Of these, 9 were removed from the register owing to definite information being obtained that five were broken up and four were sold and re-registered with other Authorities. The remaining five were found to be in use and still carrying the Derby Certificate. Of the 8 untraceable boats, only one has been met with in what may be called recent times, namely, in 1904. One was inspected last in 1892, and another in 1890. None of the remaining five have been met with since prior to the year 1888, this being the earliest year from which particulars of inspections are available.

The years in which these eight boats were registered are as follows :—

1879	..	2	1886	..	1
1880	..	1	1890	..	1
1882	..	2	1899	..	1

The boat registered in 1899 is the one last met with in 1904.

As registration only became compulsory in 1878, and that it is quite possible several of these boats were old at the time they were registered, there is little doubt that nearly all, if not all, are now broken up, but in the absence of any reliable information to that effect they have been retained on the register.

### POLICE COURT PROCEEDINGS.

Complaint.	Result.
Failure to abate smoke nuisance .. ..	Ordered to abate.
Selling adulterated milk, 8 parts % extraneous water .. ..	Dismissed*
Selling adulterated milk, 15 parts % extraneous water .. ..	Fined 80/-
Selling adulterated vinegar 11% deficient in acetic acid .. ..	Withdrawn†
Selling adulterated vinegar, 16% deficient in acetic acid .. ..	Do. - †
Selling adulterated vinegar, 12% deficient in acetic acid .. ..	Do. †
Selling adulterated milk, 20% deficient in fat	Fined 10/-
Selling adulterated milk, 11 parts % extraneous water .. ..	Fined 20/-

\* Case adjourned for Sample to be submitted to Somerset House.  
Subsequently dismissed.

† Summons not issued within statutory period.

### III. —FOOD.

#### (A) MILK SUPPLY.

##### DAIRIES, COWSHEDS AND MILKSHOPS.

Purveyors on register at beginning of year	...	...	...	303
Added during the year	...	...	...	29
Removed during the year	...	...	...	59
On register at end of year	...	...	...	273

An unusually large number of small purveyors were removed from the register over and above the number added.

This was mainly the result of the difficulty of getting supplies and the decreased demand owing to the almost prohibitive cost of milk.

##### Cowkeepers within the Borough.

On register at beginning of year	...	...	...	14
Added during the year	...	...	...	1
Removed during the year	...	...	...	3
On register at end of year	...	...	...	12

As a result of legal proceedings taken in December, 1918, against one of the cowkeepers in the Borough for occupying an insanitary cowshed, alterations and works were carried out which resulted in a great improvement being made in the sanitary condition of the Cowshed. These included a new floor, a proper and efficient system of drainage, and improved lighting and ventilation.

Similar works were also carried out in respect of another Cowshed after the occupier had received legal notice under the Dairies Cowsheds and Milkshops Order, 1885.

Owing to the improvements effected permission was given to both occupiers to re-occupy the cowsheds.

Inspector's visits	...	...	...	1096
Notices served	...	...	...	125
Notices complied with	...	...	...	123

**Registered Purveyors living outside the Borough.**

On register at beginning of year	...	...	...	...	118
Added during year	...	..	...	...	2
Removed during year	...	...	...	...	0
On Register at end of year	...	...	...	...	120

**ICE CREAM DEALERS.**

On register at beginning of year	..	265
Added during the year	.. ..	31 (new dealers)
Removed	.. ..	221
On register at end of year	.. ..	75
Inspector's Visits	.. ..	279

An attempt was made during the year towards a revival of the manufacture and sale of Ice Cream, but owing to the difficulties still existing it did not meet with very much success, and was not attempted generally. Owing to a large number of changes having taken place in the list of dealers, it has been thought advisable to start with a new list, hence the large number of dealers removed from the register. These will be kept under observation and re-entered on the register as occasion requires.

No insanitary conditions were met with, and no notices were served.

**Public Health (Milk and Cream) Regulations, 1912 and 1917.**—No action was taken during 1919 under these Regulations. There was no cream exposed for sale until about the middle of November, when it was temporarily released from control, which however, was re-imposed before the end of the year.

The Health Committee requested the local Members of Parliament to urge that the Milk and Dairies (Consolidation) Act be put into operation at an early date.

**The Milk (Mothers and Children) Order, 1918.**—Under the provisions of the above Order, the Health Committee made arrangements for the supply of milk to children and to expectant and nursing mothers. In necessitous cases the milk was given free of cost on the recommendation of the Medical Officer to the Welfare



Centres; in other cases it was sold at cost price. The following amounts were supplied during the year :—

		Sold at cost price.	Supplied free.	Total.
Dried Milk	.. ..	2,420½lbs.	2,135½lbs.	4,556lbs.
Condensed Milk	.. ..	5 tins	111 tins	116 tins

**(B) OTHER FOODS.**

## Unsound Food Condemned.

FISH, ETC.	lbs.	VARIOUS.	lbs.
Herrings .. ..	4857	Bacon .. ..	1305
Maekerel .. ..	3248	Corned Beef ..	374
Mussels .. ..	3136	Ham .. ..	388
Codfish .. ..	987	Frozen Tripe ..	338
Sprats .. ..	774	Chickens .. ..	236
Haddock .. ..	662	Sausages .. ..	126
Kippers .. ..	644	Tongues .. ..	89
Rock Salmon ..	337	Kidneys .. ..	56
Gurnett .. ..	224	Yeast .. ..	28
Prawns .. ..	188	Polony .. ..	20
Whiting .. ..	112	Rolled Oats ..	7
Hake .. ..	112	Sausage Meat ..	6
Roe and Chitterlings	112	Butter .. ..	3
Shrimps .. ..	56	Brawn .. ..	3
Lobster .. ..	45		
Crabs .. 200 (in number)		TINNED GOODS.	tins
		Jam .. ..	537
FRUIT & VEGETABLES.		Tomatoes .. ..	577
	lbs.	Apricots .. ..	128
Peas .. ..	7000	Condensed Milk ..	127
Dates .. ..	2498	Peaches .. ..	15
Tomatoes .. ..	1921	Pineapple .. ..	11
Onions .. ..	1232	Salmon .. ..	1
Cucumbers .. ..	380		
Black Currants ..	28	Eggs (in number)	5310
Bananas .. (crate)	1	Rabbits .. ..	1020
MEAT.	lbs.		
Beef .. ..	74008		
Offal .. ..	4704		
Mutton .. ..	2170		
Veal .. ..	1579		
Pork .. ..	683		

## FOOD-PREPARING PREMISES.

Number of pork butchers' shops	...	...	...	...	31
„ shops where making-up is carried on	...	...	...	...	27
„ visits of inspection	...	...	...	...	358
„ verbal notices given and complied with	..	..	..	..	42

One new shop has been opened, and two re-opened, their owners having returned from military service. One remains closed, the owner not yet having returned from the Army.

At the end of the year no premises were being used for the preparation of food for the troops.

## BAKEHOUSES.

Bakehouses in occupation at beginning of year	...	...	...	...	54
Empty Bakehouses re-occupied	...	...	...	...	3
Added during year	..	..	..	..	1
Transferred to Factory List	...	...	...	...	0
Vacated during the year	...	...	...	...	5
Number on register at end of year	...	...	...	...	53

## DISUSED BAKEHOUSES :—

Unoccupied at beginning of year	...	...	...	...	73
Vacated during the year	...	...	...	...	5
Re-occupied during the year	...	...	...	...	3
Demolished during the year	...	...	...	...	1
Number unoccupied at end of year	...	...	...	...	74
Visits paid to occupied Bakehouses	...	...	...	...	356
Visits paid to unoccupied Bakehouses	...	...	...	...	128
Visits paid to Factory Bakehouses	..	..	..	..	3

## SANITARY WORK :—

Defects found during the year	...	...	...	...	65
Defects remedied (including 1 from 1918)	...	...	...	...	66
Written notices served	...	...	...	...	3
Verbal notices given	..	..	..	..	62

## MEAT INSPECTION.

One hundred and seventy-eight carcasses of beef were condemned for the following reasons :—61 tuberculosis, 4 black quarter, 12

septicaemia, 5 difficult parturition, 2 anthrax, 32 dropsy, 19 fevered, 10 suffocated and in moribund condition, 33 emaciated.

There have also been destroyed 40 carcasses of veal and 37 bodies of mutton. The number of tuberculous cattle was 104, a decrease of 10 on the previous year : 89 were cows, 9 heifers, and 6 bullocks.

#### **Condition of Tuberculous Animals.—**

Cows—	Prime condition ...	16
	Good „ ...	11
	Poor „ ...	62
Heifers—	Prime condition ...	2
	Good „ ...	2
	Poor „ ..	5
Bullocks.—	Prime condition ...	4
	Poor „ ..	2

In addition to the above 25 pigs were found to be tuberculous.

In three cases the whole carcase was condemned, and in the remainder the head and neck and diseased offal were condemned.

**Slaughter of Casualty Cattle.**—Derby is still the centre for the Midlands, at which the Live Stock Commissioners for this area deal with all cattle which, from accident or other cause require immediate slaughter, and to this fact may be attributed the great number of cattle condemned.

The work of slaughtering, dressing, and distributing these cattle is undertaken for the Commissioners by the Derbyshire Farmers' Co., Ltd., Cattle Market, Derby.

**Disposal of Condemned Meat.**—During the year over thirty-two tons of meat have been dispatched to Messrs. Bitterlings, Ltd., Nottingham, to be treated for the recovery of fats, bones and meat, and their preparation for commercial purposes.

## SLAUGHTER-HOUSES.

At the end of year 1919 :—

In hands of private holders	...	...	...	...	...	31
Corporation houses let to private tenants	...	...	...	...	...	18
Corporation houses used as public	...	...	...	...	...	3
Corporation houses standing empty	...	...	...	...	...	0
Corporation houses used as tripe boiling premises	...	...	...	...	...	2
Private houses standing empty	...	...	...	...	...	0

The three following licences have been allowed to lapse, the houses having been used for other purposes :—

Rear of 5 and 7, Morleston Street.

31, Dale Road.

102, Cobden Street.

Visits of inspection : 7,805.

Inspector Hanson again reports that the slaughter-houses generally have been kept in a cleanly condition and the regulations complied with.

**Public Abattoir.**—Slaughtering at the Corporation Houses is under the direct control of the Health Department.

On May 16th, 1919, the Corporation Slaughter Houses were visited by Dr. Vernon Shaw, of the Local Government Board.

## (C.)—SALE OF FOOD AND DRUGS ACTS.

The following is the report of the Borough Analyst upon samples examined under the above Acts during the year 1919.

“ During the year 216 samples have been received under the Sale of Food and Drugs Acts, and the following Table shows the nature of the articles and the number found to be adulterated ;—

Articles.		Total.	Adulterated.
Baking Powder	.. ..	6	
Cake Flour	.. ..	1	
Coffee	.. ..	5	
Jam	.. ..	1	
Margarine	.. ..	6	
Milk	.. ..	175	9
Mustard	.. ..	1	1
Self-Raising Flour	.. ..	7	
Vinegar	.. ..	14	6
		—	—
Total	.. ..	216	16
		—	—

The average composition of the whole of the 175 samples of Milk, including those returned as adulterated, was as follows :—

Non-fatty solids	.. ..	8.68
Fat	.. ..	3.82
Total Solids	.. ..	12.50

This represents milk of excellent quality and rich in fat. Such a result affords evidence that the milk supplied in the Borough is naturally of good quality, and consequently consumers ought to receive milk of satisfactory character and of a composition well above the legal limits.

I am,

Mr. Chairman and Gentlemen,

Your obedient Servant,

(Signed) JOHN WHITE, F.I.C.

Borough Analyst."

In respect of the above the following particulars may be noted :—

**Milk.**—Particulars of adulterated samples are as follows :—

4 deficient in non-fatty solids, viz., 3%, 3%, 3%, 4% respectively.

2 deficient in solids, fat, viz., 3%, 20% respectively.

3 contained extraneous water, viz :—8%, 11 %, 15% respectively.



Of other samples taken 7 were exceptionally rich in fat, 4.92, 5.03, 5.10, 5.48, 5.50, 5.71, 7.70; 4 were low in fat, 2.93, 2.94, 2.95, 2.97 and 11 were low in non-fatty solids, 8.30, 8.32, 8.38, 8.40, 8.42, 8.42, 8.44, 8.45, 8.46, 8.46, 8.48.

**Vinegar.**—The six samples reported as not being genuine, were deficient in acetic acid 2%, 3%, 5%, 11%, 12%, 16% respectively.

**Mustard.**—This sample was reported to contain mustard not

more than	..	..	..	..	..	50%
	Wheat flour at least	..	..	..	..	50%
						<hr/> 100 <hr/>

The sample of cake flour contained 0.25 parts per million of arsenic.

1 sample of baking powder and one of self-raising flour contained similar amounts.

Taking the total number of samples it will be noted that 7.4% were adulterated as compared with 4.3% in the previous year.

#### INFORMAL SAMPLES.

Fifteen samples were taken as "informal" samples, viz. :—

Self-raising flour	..	5
Baking Powder	.. ..	5
Milk	.. ..	4
Cake flour	.. ..	1

**Milk.**—These four samples were examined for the presence of dirt particles, with the result that in three of the samples a sediment equivalent to 2.0, 3.8, and 4.0 parts per 100,000, respectively, was obtained.

## IV.—INFECTIOUS DISEASES.

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### 1.—THE NOTIFICATION OF INFECTIOUS DISEASES.

The number of cases of infectious diseases notified during 1919 in accordance with the requirements of the Infectious Diseases Notification Acts was 5,005, as compared with 1,132 in the previous year. In addition, there were 330 cases of Pulmonary Tuberculosis and 87 cases of other forms of Tuberculosis notified under the Tuberculosis Regulations; also 46 cases of Whooping Cough, 153 cases of Varicella, and 42 cases of Mumps, notified by school teachers.

The total number of notifications under the Notification Acts and Orders of the Local Government Board (i.e., excluding the voluntary notification of Varicella, etc.) was therefore 5,422. Of this number 4,058 (i.e., 74·8%) were notifications in respect of cases of Measles and German Measles.

The highest and lowest weekly notifications under the Notification Acts were as follows:—

Week ending.		Cases Notified.	
October 25th, 1919	highest number	..	338
January 4th, 1919	lowest number	..	17

Reports on Puerperal Fever, Ophthalmia Neonatorum, Measles, Whooping Cough, Epidemic Diarrhoea and Poliomyelitis, are given in section V. "Maternity and Child Welfare."

TABLE V.—Summary of cases of Infectious Disease notified in each Quarter during 1919.

Quarters.	Totals	Small Pox.	Scarlet Fever.	Diphtheria including Membranous Group.	Erythematous Fever	Erysipelas	Puerperal Fever	Cerebro-spinal Fever	Polio-myelitis.	Acute Encephalitis Lethargica.	Pneumonia	Malaria.	Dysentery.	Trench Fever	Pulmonary Tuberculosis.	Other Tuberculous Diseases	Ophthalmia Neonatorum	Measles & German Measles
First ..	562	..	48	56	..	18	1	..	..	..	104	13	3	..	85	27	14	193
Second	956	1	23	49	3	19	2	3	1	..	46	13	1	..	72	27	33	663
Third ..	1,084	..	17	62	1	19	4	1	..	11	23	29	1	1	87	22	40	766
Fourth	2,820	..	41	96	..	24	12	1	..	..	21	40	4	..	86	11	48	2,436
Year ..	5,422	1	129	263	4	80	19	5	1	11	194	95	9	1	330	87	135	4,058
Deaths Regist'd in 1919	222	..	1	10	..	1	5	2	..	5	41*	..	..	..	112	26	..	19

\* This refers to notified cases only.

TABLE VI.—PARTICULARS OF ACTION TAKEN WITH THE INFECTIOUS DISEASE CASES.

	QUARTERS.				Totals.
	First.	Second.	Third.	Fourth.	
<i>Number of visits made by Inspectors</i>	871	942	1058	3015	5886
<i>Cases isolated. Borough Hospital :</i>					
Scarlet Fever .. .. .	42	15	18	32	107
Diphtheria .. .. .	36	23	37	54	150
Measles and German Measles ..	4	5	15	111	135
Enteric Fever .. .. .	..	2	1	..	3
Puerperal Fever .. .. .	..	..	1	..	1
Ophthalmia Neonatorum ..	1	..	..	..	1
Cerebro Spinal Fever .. ..	..	3	1	1	5
Erysipelas .. .. .	..	..	..	1	1
Meningitis .. .. .	1	..	..	..	1
Encephalitis Lethargica .. ..	..	..	7	..	7
Whooping Cough .. .. .	..	1	..	..	1
Mumps .. .. .	..	..	..	1	1
Chicken Pox .. .. .	..	..	2	1	3
Pneumonia .. .. .	..	..	1	..	1
Convalescent Maternity Case ..	..	..	1	..	1
<i>Cases removed to Borough Sanatorium:</i>					
Pulmonary Tuberculosis ..	46	29	54	59	188
Non-pulmonary Tuberculosis ..	5	1	4	1	11
<i>Case isolated. Blakeley Hospital :</i>					
Small-Pox .. .. .	..	1	..	..	1
<i>Cases isolated. Royal Infirmary :</i>					
Pneumonia .. .. .	19	7	3	7	36
Puerperal Fever .. .. .	..	..	2	7	9
Erysipelas .. .. .	..	1	..	1	2
Dysentery .. .. .	1	..	..	..	1
Malaria .. .. .	1	3	2	..	6
Measles and German Measles ..	..	4	..	6	10
<i>Cases isolated. Guardians Infirmary :</i>					
Pneumonia .. .. .	7	1	..	..	8
Puerperal Fever .. .. .	..	1	..	2	3
Erysipelas .. .. .	..	1	..	..	1
Measles and German Measles ..	..	3	7	2	12
<i>Cases isolated. Children's Hospital :</i>					
Pneumonia .. .. .	7	6	4	1	18
Ophthalmia Neonatorum ..	2	1	..	..	3
Measles and German Measles ..	..	..	1	6	7
<i>Cases isolated. Nightingale Nursing Home.</i>					
Pneumonia .. .. .	1	1	..	..	2
Puerperal Fever .. .. .	..	..	1	..	1
Ophthalmia Neonatorum ..	..	..	..	4	4
Cases willing to be isolated but for which no room could be found	6	4	1	1	12
Cases in which isolation was delayed	2	..	..	9	11
Number of rooms disinfected ..	207	137	242	295	881
„ classrooms „ at the various schools within the Borough ..	15	..	10	12	37

**Notifications from other Authorities of possibly infected persons  
coming to Derby.**

<i>No.</i>	<i>Date.</i>	<i>Infection.</i>	<i>Authority.</i>	<i>Remarks.</i>
1	3/3/19	Small Pox	Clipstone	Sailed on infected ship (not a direct contact)
2	12/3/19	Ditto	Epsom	Ditto
3	23/3/19	Scarlet Fever	Carrington	Contact
4	26/3/19	Small Pox	London	Ditto
5	29/3/19	Ditto	Plymouth	Sailed on infected ship (not a direct contact)
6	14/4/19	Ditto	Grantham	Ditto (five cases)
7	6/5/19	Bubonic Plague	Ripon	Ditto
8	7/5/19	Ditto	London	Ditto (four cases)
9	13/5/19	Small Pox	Plymouth	Ditto
10	1/7/19	Ditto	Liverpool	Ditto
11	22/7/19	Paratyphoid B.	Bedford	Contact
12	21/8/19	Measles	Burton-upon- Trent	Ditto
13	24/8/19	Scarlet fever	St. Maryle- bone	Ditto
14	28/8/19	Small Pox	Liverpool	Sailed on infected ship (not a direct contact)
15	7/10/19	Ditto	Liverpool	Travelled from in- fected district
16	10/10/19	Ditto	St. Pancras	Ditto
17	11/12/19	Influenza	Ripon	Sailed on infected ship

During 1919 there were received from the military authorities reports of six soldiers returning to Derby convalescent after various infectious diseases, viz. :—

Convalescent after	Malaria	..	4 cases.
„	„	Dysentery..	2 cases.

Suitable action was taken in all the above cases. There was no development of the disease or spread of infection from any of the above.

### SMALLPOX.

One case of Small Pox was notified in Derby during the year, the patient being a married woman, aged 44. The case was noti-



fied on the 8th April, and removed to the Small-Pox Hospital at Blakeley.

The patient, when seen by the Medical Officer of Health, had profuse papular eruptions on the forearms, on the forehead, on the sides of the neck, on the buttocks and knees, the rash being most profuse on the forearms. There was little prostration. After consultation with the Chairman of the Health Committee (a medical man with a good deal of experience of Small-Pox in former years), it was decided that the case was probably varioloid, and precautionary measures were taken. Contacts were vaccinated or re-vaccinated, as well as the unprotected members of the Staff of the Health Department. The patient herself had been vaccinated in infancy, and the eruption, which later shewed some abortive pustulation, rapidly went through the scabbing stage to recovery.

No satisfactory source of infection was discovered, but the patient's son, aged 22, had been billeted near London for the previous eight months. Before coming home he had suffered from some sickness at the end of March and the beginning of April, but there was no history of eruption in his case.

No further cases occurred during the year.

**Vaccination.**—I am indebted to Mr. J. Badderley, the Vaccination Officer of the Derby Union, for the following particulars relating to Vaccination for the year 1919 :—

Births	..	..	..	..	..	..	2,537
Deaths of Unvaccinated Children (under 12 months)	..	..	..	..	..	..	256
Insusceptible and postponed cases	..	..	..	..	..	..	2
Successfully Vaccinated	..	..	..	..	..	..	76
Conscientious objection certificates	..	..	..	..	..	..	476

Twelve re-vaccinations were performed by the Medical Officer of Health under the Public Health (Small-Pox Prevention) Regulations, 1917.

#### SCARLET FEVER.

Cases Notified	..	..	..	129
Death	..	..	..	1
Case Mortality	..	..	..	0.78%
Mortality per 1,000 inhabitants	..	..	..	0.008

The number of cases of Scarlet Fever notified during 1919 was 134, of which 5 were withdrawn, leaving 129 true cases, a decrease of 55 from the number for 1918.

**Ward Distribution.**—See Appendix I. The Quarterly Incidence is shewn in Table V. (page 54).

**Age Periods.**—See Appendices I. and II.

**Removals to Hospital.**—See Appendix I.

**Sex.**—56 of the 129 cases were males, and 73 females.

**Infected Households.**—One hundred and twenty of the cases occurred in 100 households. In 11 instances 2 cases occurred in a house, in 3 instances 3 cases, and in one house 4 cases occurred. In addition to the above there were 9 cases notified from 5 institutions in the town.

**Return Cases.**—There were 2 hospital “return” cases, or cases occurring in households within one month of the return of a convalescent Scarlet Fever case from the Infectious Diseases Hospital—a percentage of 1·6 of the cases notified and 1·9 of the cases admitted to hospital, but in one of these cases the evidence was very doubtful.

**Probably Imported Scarlet Fever.**—The following cases may have contracted the disease outside the Borough.

(a) No. 18 (male, 6 years), visited Belper on 20th January, returned 21st January. Onset of illness 26th January.

(b) No. 61 (female, 6 years), returned from Blackpool 9th May. Onset of illness 16th May.

**Insanitary Conditions.**—Sanitary defects were reported by the Visiting Inspector in 7 houses, a percentage of 5·4 of the cases notified.

**Infringements, &c., of Acts.**—A mother who had failed to notify her child as suffering from Scarlet Fever, and also had visited another house in which there were six children (whose ages ranged from eleven years to three days), was ordered to appear before the Health Committee, and was cautioned.

One case occurred at an address at which a fruiterer's business was carried on. Certain portions of the stock were confiscated, compensation being allowed.

#### ERYSIPELAS.

Cases notified	..	..	..	80
Deaths	..	..	..	2 (including one non-resident).

The parts of the body affected were as follows :—

Face and head	..	..	..	66 cases
Lower limbs	..	..	..	12 „
Upper limbs	..	..	..	2 „
				—
Total	..			80 cases
				—

The leg was affected in the fatal case (resident), and the face in the case of the non-resident.

**Relation of Injuries and Disease.**—History of recent injury or disease was obtained in 15 cases :—

Cuts	..	..	3	Surgical operation	..	2
Scratch	..	..	3	Gnat bite	..	1
Injury to face & head			3	Scalds	..	1
Injury to knee	..		2			

In addition to the above, one case followed an abscess, and another followed eczema.

**Previous Attacks.**—Erysipelas had attacked 15 of the patients previously, the periods varying from five months to 59 years.

Five months ago	..	1	Five years ago	..	1
One year ago	..	2	Twelve years ago	..	1
One-and-a-half-years ago		1	Seventeen years ago	..	1
Two years ago	..	1	Thirty years ago	..	1
Three years ago	..	1	Fifty-nine years ago	..	1
Four years ago	..	1	“Several” years ago		2

Several during the last twenty-eight years .. 1

**Ages.**—See Appendix I.

**Sex.**—There was a slight preponderance of females, viz., 46 to 34 males.

#### DIPHTHERIA.

Cases Notified	..	..	..	263
Deaths	..	..	..	11
			(including one non-resident)	
Case Mortality	..	..	..	3.9%
Mortality per 1,000 inhabitants	..			0.08

The total number of Diphtheria cases notified during 1919 was 270, of which number 7 were subsequently withdrawn as not being cases of this disease. Nearly two-thirds of the total 263 (viz., 163) were cases discovered by bacteriological examination, many of these being "carriers" with no clinical signs of disease. One case was notified as "membranous croup."

Diphtheria was therefore less prevalent within the Borough during 1919 than in 1918; the number of cases (263) is a decrease of 37 compared with the number notified in 1918 (300), and the number of deaths (10) is 4 less than the number of fatal cases in 1918.

Included in the 263 cases are (a) 100 cases notified by medical men in the town on clinical symptoms only; (b) 116 cases notified on the results of bacteriological examinations of throat swabs of suspicious cases of throat illness and of cases with nasal discharge; and (c) 47 cases discovered in school or in homes of the people, chiefly the "close contacts" of notified cases. The number of cases discovered by bacteriological examinations is a decrease of 37 from the number in 1918.

**Quarterly Incidence.**—See Table V. (page 54).

**Ward Distribution.**—See Appendix I.

**Age Periods.**—See Appendices I. and II.

**Sex.**—Males 109 cases, 5 deaths; females 154 cases, 5 deaths.

**Schools Attended by the Fatal Cases.**—Seven of the fatal cases were not attending school, the remainder (3) attended school as follows :—Gerard Street, St. Chad's and St. James' Higher Grade 1 each.

**Antitoxin in relation to Fatal Cases.**—Seven of the fatal cases (including one non-resident) were treated at the Borough Infectious Diseases Hospital, one died in the Isolation Hospital, Great Yarmouth, and three were treated at home. In 4 cases antitoxin was administered, in 6 cases there was no record of its administration, but all cases admitted to the Isolation Hospital receive full doses on admission.

**Infected Households.**—Two hundred and fifty-two of the cases occurred in 207 households. In 20 households there were 2 cases each, in 6 instances 3 cases each, in 3 instances 4 cases each, and in 1 house 5 cases occurred. In addition to the above there were 11 cases notified from 5 institutions.

**Second Attacks.**—In eight instances the patients had suffered from Diphtheria previously.

**Previous Cases in Household.**—In 31 instances previous cases of Diphtheria had occurred within periods of 1 month to 5 years, viz. , Thirty-five at a period of 1 month previously, one at 2 months, two three months, one 4 months, one 2 years, and one 5 years.

**Occupation.**—142 of the 263 cases were school children (i.e., 54%), 50 were either children below school age or children not attending school. Among the remaining 71 cases (53 females and 18 males) there was no special indication that any particular occupation was a factor in the spread of the disease. Thirty-one of the adult females were engaged in domestic duties and 4 in the nursing profession.

One of the cases was notified from an address at which a fruiterer's business was carried on. Compensation was allowed in respect of the confiscated goods.



**Nuisances.**—The Visiting Inspectors reported nuisances in 15 instances (a percentage of 5·7 of the cases notified) :—

Defective drains, &c.	..	..	5 cases
Offensive smell from street drains			3 „
Defective roof	..	..	2 „
Overcrowding	..	..	1 case
Offensive accumulation	..	..	1 „
Defective sink	..	..	1 „
Defective water pipe	..	..	1 „
W.C. blocked	..	..	1 „

As far as possible the sanitary defects mentioned above were remedied.

**Probably Imported Cases**—The following cases may have contracted the disease outside the Borough.

(a) No. 25 (female, 29 years). Visited Diphtheria case at Twyford from 4th to 7th February. Throat illness 9th February.

(b) No. 36 (female, 3 years). Left Belper on 14th February. Illness noticed on arrival at Derby. Admitted to Children's Hospital and transferred to the Borough Isolation Hospital, where she died on 3rd March.

(c) No. 74 (female, 5 years). Admitted to Derbyshire Royal Infirmary, Derby, from Snelston on May 1st, with "enlarged tonsils." Swab showed diphtheria bacilli.

? (d) No. 126 (male, 2 years). Visited Matlock 12th July. Onset of illness 16th July.

? (e) No. 156 (female, 9 years). Visited New Cross from 25th July to 26th August. Onset of illness 1st September.

**Milk Supply.**—In no case could the attack of Diphtheria be traced to the milk supply.

**Removals to Hospital.**—See Appendix I.

**Bacteriological Examinations.**—See page 102

**School Notification.**—18 cases of sore throat were notified by the school teachers during 1919 ; each of these was visited by a Medical Member of the Staff of the Health Department and a swabbing

taken of the throat in most instances; 8 cases of Diphtheria were also reported by the School Authorities in 1919.

**Antitoxin.**—Antitoxin was supplied gratuitously, as in previous years, to the medical men practising in Derby. During 1919 the following amounts were supplied:—

- 111 phials containing 2,000 units each.
- 97 phials containing 4,000 units each.
- 11 phials containing 8,000 units each.

#### ENTERIC FEVER.

Total Cases notified	..	..	..	4
Deaths	..	..	..	0
Percentage Case Mortality	..	..	..	nil
Mortality per 1,000 of population	..	..	..	nil

Three of the four Derby cases were treated in the Borough Isolation Hospital, and one at home.

**Blood Examinations.**—13 blood specimens were examined for Widal's reaction; 12 of these were negative and 1 positive. Two of the four notified cases were positive and two were negative.

**Monthly Incidence** as follows:—May 3 and August 1.

**Age and Sex Distribution.**—There were 3 males and 1 female.

	Males.	Females.	Deaths.
5—15 ..	2 ..	0 ..	0
15—25 ..	0 ..	0 ..	0
25—45 ..	1 ..	1 ..	0

**Ward Distribution.**—See Appendix I.

**Houses.**—The 4 cases of Enteric Fever notified as occurring amongst Derby residents affected 4 separate households.

**Sanitary Conveniences.**—Of the 4 infected houses, 2 were provided with w.c.'s, and two with tub, closets. In one of the latter cases the closet was defective and insanitary. One house was overeroweded.

**Causation.**—In no case was either the water supply or the milk to be suspected as conveying the infection.

#### CONTINUED FEVER.

No case was notified as continued fever during the year.

#### CEREBRO-SPINAL FEVER.

Cases Notified	..	..	..	6
Deaths	..	..	..	2

Six cases were notified during the year, but one of these was subsequently withdrawn, and one was admitted to the Derbyshire Royal Infirmary from the Ashbourne district, and found on admission to be suffering from Cerebro-Spinal Fever. Of the four remaining cases three were females, and one male, the age of the male being one year and eleven months, and the ages of the females being respectively 3 years and 2 months, 16 years, and 30 years. The two fatal cases were the two young children, male 1 year and 11 months, and female 3 years and 2 months. The two elder females both recovered.

All the cases were treated in the Borough Isolation Hospital. Bacteriological confirmation of the diagnosis by lumbar puncture was made in every case, and rubbings of the throats of the contacts in the same household, &c., were examined, all with negative results.

No trace of the source of infection could be obtained in any of the cases, and no definite relation to military cases was discovered.

The four Borough cases occurred in different Wards of the town (Abbey, Arboretum, Becket and Normanton).

#### ENCEPHALITIS LETHARGICA.

Cases notified	..	..	..	11
Deaths	..	..	..	5

All the notified cases were females living in a home within the Borough. The first case was notified on the 18th August, and the last on the first of September, the outbreak being strictly localised in both time and place. Seven cases were removed to the Borough Isolation Hospital.

In addition to the 11 notified cases, two members of the staff at the Home shewed symptoms which led Dr. A. S. MacNalty, of the Ministry of Health, who investigated the outbreak, to come to the conclusion that they had had mild attacks of the disease. These two latter cases, together with six notified cases, recovered with no after effects. The ages of the notified cases varied from 14 to 24 years. Details of age, sex, etc., are given in the subjoined Table :—

Initials.	Address.	Age.Sex	Date.		Died	Recovered with.
			Notified.	Onset.		
M.C.	6 Bass St.	17 F.	18 Aug.	16 Aug.	Aug. 19	—
S.A.	„	18 F.	18 „	14 „	22	—
V.S.	„	21 F.	18 „	17 „	25	—
I.H.	„	17 F.	19 „	17 „	—	No after effects
G.R.	„	21 F.	18 „	20 „	—	„ „
D.A.	„	17 F.	19 „	17 „	25	—
G.P.	„	19 F.	18 „	15 „	25	—
G.W.	„	24 F.	19 „	16 „	—	No after effects
A.D.	„	16 F.	19 „	14 „	—	„ „
I.S.	„	21 F.	30 „	26 „	—	„ „
L.A.	„	14 F.	1 Sept.	27 „	—	„ „

**History of the Outbreak.**—The attention of the Health Office was called to an outbreak of cases with symptoms of so-called Botulism on 18th August. On the following day it was reported to the Health Office that one of the cases had died suddenly, and the Medical Officer of Health visited the Home, and found cases with symptoms of the above disease. A wire was sent to the Ministry of Health, who kindly sent down Dr. A. S. MacNalty (who had expert knowledge of these cases), and he, together with the officials of the Health Department, and the Medical Officer of the Institution, made a thorough investigation. The result confirmed the original diagnosis that the cases were of the type formerly known as Botulism, but more recently grouped under the

term Encephalitis Lethargica. The blood of the first five cases notified was examined for Widal's reaction, one of these give a "partial positive reaction," the rest were negative. Examination of the cerebro spinal fluid of two of the early cases gave negative results. The early symptoms were sore throat, loss of voice, with dry and dirty tongue, nausea, dilated pupils and photophobia together with marked prostration. Some of the patients had abdominal pain. The temperature was not usually higher than 99°F. The later signs were especially increasing apathy and prostration, ptosis and other ocular symptoms, obstinate constipation. No source of the origin of the cases could be discovered. The dietary of the Home was carefully inquired into, but no relationship to food could be elicited.

There was no spread of the infection from the Home.

#### PUBLIC HEALTH (PNEUMONIA, MALARIA, DYSENTERY AND TRENCH FEVER) REGULATIONS, 1919.

These diseases became notifiable as from 1st March, 1919. During the year 194 cases of pneumonia were notified, 95 of malaria, 9 of Dysentery, and 1 of Trench Fever.

##### PNEUMONIA.

Cases notified (since 1st March, 1919)	..	..	194
Deaths of notified cases	..	..	41
Case mortality (Notified cases)	..	..	21.1%
Deaths for year	..	..	77
Mortality per 1,000 inhabitants	..	..	0.06
Ward Distribution	..	See Appendix 1	
Age Periods	..	do.	
Cases Isolated	..	See Table VI.	

**Sex.**—124 of the cases were males and 70 females. Arrangements were made with the Royal Nursing Institution for the provision of trained nurses for cases in which efficient nursing could not be provided, 13 patients were attended by these nurses, and 11 of them recovered.



Sanitary defects were found at 20 houses, viz. :—

Damp House	..	..	..	1
Defective drains	..	..	..	1
„ roofs	..	..	..	4
„ walls	..	..	..	2
„ W.C. fittings			..	4
Dirty House	..	..	..	1
Drains blocked	..	..	..	1
Offensive privies	..	..	..	4
„ privy floor			..	1
Overcrowding	..	..	..	1

### MALARIA.

95 cases notified.

1 Death.

The fatal case was a soldier who had served in Salonica.

Two cases reported by the Pensions Board Medical Officer could not be traced, the wrong addresses being given.

The remaining cases were ex-soldiers with a record of having contracted Malaria whilst serving with H.M. Forces, as follows :—

61 in Salonica.	2 in Mesopotamia.
11 in Egypt.	1 in East Africa.
5 in Egypt and Salonica.	1 in Greece.
4 in India	1 in India and Mesopotamia.
2 in German East Africa.	1 in Salonica (and Prisoner of
2 in India and Egypt.	War, Germany).

1 contracted Malaria in South Africa, 1902, and had further attacks whilst on Home Army Service.

Six cases were treated in the Derby Royal Infirmary.

The sanitary conveniences in 93 cases visited were : 73 W.C's, 15 tubs, 5 privies.

**Sanitary Defects.**—The following defects received attention :—

2 defective spouting.	1 burst water pipe in W.C.
3 „ roofs.	1 drain blocked.
2 „ floors and walls.	1 offensive privy.
1 „ W.C. eistern.	1 offensive smell from drain.
1 dirty walls.	
1 accumulation of water in cellar.	

### DYSENTERY.

9 cases notified.

Eight of the cases were ex-soldiers, 3 of whom had served in France, 2 in Salonica, 2 in Egypt, and 1 who had served in Mesopotamia and France had also been a prisoner of war in Germany.

The other patient was a soldier on leave who had been visiting relatives in the town, but he had left before satisfactory information could be obtained.

The sanitary conveniences of the houses in all cases were W.C.'s.

One patient was admitted into the Derby Royal Infirmary.

No primary case was reported during the year.

### TRENCH FEVER.

One case was notified during the year, an ex-soldier, aged 34 years. Notification was received in August, the patient having been demobilised from France on the 25th February. This patient was working and was not very ill at the time of the enquiry. He stated that he had had no previous attack of Trench Fever, but had been admitted to Hospital in France in January, 1918, with Valvular Disease of the Heart, and been discharged in August of the same year. He was again admitted to hospital in May, 1919, suffering from "Disordered Action of the Heart," and from "Pyrexia of Uncertain Origin." There was no history of lice infection in this case.

### INFLUENZA.

Details of the Mortality from Influenza are given under Section I (Vital Statistics). The following administrative actions may be mentioned ;—

Special arrangements were made with the Fuel Controller in cases where difficulty was experienced in obtaining coal.

Dried milk was distributed in necessitous cases through the Welfare Centres, to mothers and children who were unable to obtain a sufficient supply of cows' milk in the usual way.

## (2).—TUBERCULOUS DISEASES.

Total number of Notifications of Pulmonary Tuberculosis ..	461
Number of <i>new</i> cases of Pulmonary Tuberculosis notified in	
Derby .. .. .	330
Re-notifications .. .. .	131
Deaths from Pulmonary Tuberculosis .. .. .	112
Notifications of other forms of Tuberculosis (primary notifications) .. .. .	87
Deaths from other forms of Tuberculosis .. .. .	26

These diseases are classified under two headings; namely: (1) Pulmonary Tuberculosis, and (2) "Other Tuberculous Diseases," which include Tabes Mesenterica, Tuberculous Meningitis, Scrofula, etc. The total number of cases of all forms of Tuberculosis notified during the year is an increase of 4 on the number notified in 1918.

The total number of deaths from Tuberculous Diseases is 138, as compared with 156 in 1918.

The table, Appendix II., shews ages at death of these Tuberculosis cases.

## PULMONARY TUBERCULOSIS.

**Notification.**—The total number of notifications of Pulmonary Tuberculosis received at the Health Office during 1919 was 461; of these cases 332 were notified by private practitioners or by the Medical Officer of Health and his assistants, while 90 were Poor Law cases, and 39 were patients of Institutions in the town. Of the 461 cases notified, 131 had been previously reported, while the number of new cases was 330, an increase of 5 on the number notified in the previous year. At the end of 1919 there were 1,169 notified cases under treatment.

**Ward Distribution** of notified cases and deaths registered during 1919 :—

	Cases Notified		Deaths			Cases Notified		Deaths	
Abbey	...	28	...	12	King's Mead	...	24	...	9
Arboretum	...	18	...	7	Litchurch	...	21	...	5
Babington	...	17	...	10	Markeaton	...	18	...	4
Becket	...	23	...	9	Normanton	...	18	...	6
Bridge	...	9	...	7	Osmaston	...	18	...	6
Castle	...	25	...	10	Pear Tree	...	27	...	9
Dale	...	18	...	5	Rowditch	...	18	...	5
Derwent	...	13	...	2					
Friar Gate	...	35	...	6	Total	...	330	...	112

**Age and Sex.**—The age incidence of persons notified in 1919 is shown in Appendices 1 and 1a. There were 202 males and 128 females notified.

**Sputum Examination.**—The number of specimens sent for bacteriological examination was 601, as compared with 665 for the year 1918. For particulars of other bacteriological examinations in connection with tuberculosis, see page 103.

**Occupations.**—The occupations of the notified cases are summarised as follows :—Children 61 (including 54 school children), domestic duties 53 (including 7 domestic servants), textile workers 20, workers in wood, stone, metal, etc., 64 ; labourers 32, various indoor occupations 65, various other occupations 26, no record 9. Total 330.

**Schools.**—The schools attended by the 54 school children were respectively as follows :—Ashbourne Road, Brighton Road, St. Chad's and St. James' Road, 4 each ; Orchard Street and St. John's, 3 each ; All Saints', Christ Church, Clarence Road, Curzon Street, Kedleston Road, Parliament Street, Pear Tree, St. Andrew's St. Mary's, St. Paul's and Traffic Street, 2 each. Firs Estate, Gerard Street, Nottingham Road, Nuns Street, Osmaston, Reginald Street, St., Anne's, St. Dunstan's, and St. James' Higher Grade (Girls) 1 each ; Private School 1.

**Previous Illnesses.**—Definite history of previous respiratory illnesses was obtained in 204 cases, viz :—Bronchitis 150, Pneumonia 80, Pleurisy 78, Empyema 2, Laryngitis and Tonsillitis 1 each ; while Hæmoptysis was recorded as a symptom in 111 cases. 171 cases had had previous infectious illnesses, viz. :—Influenza 98, Measles 81, Whooping Cough 56, Enteric Fever 6, Malaria 4, Chicken Pox, Dysentery and Diphtheria 3 each ; Scarlet Fever 2 ; Cerebro-Spinal Fever 1. In one case there was a definite admission of alcoholism.

**Tuberculosis in ex-Soldiers.**—Included in the 330 cases notified during 1919 were 108 ex-soldiers. Six of these had been “gassed” (one three times), and in three instances there was a history of Trench Fever. Eleven of the soldiers had been wounded, and two had been prisoners of war in Germany.

**Housing.**—The Health Visitors were able to obtain information about the housing accommodation in 320 of the 330 cases notified in 1919. The results are as follows :—

Houses.					Cases.
One-roomed	..	..	..	..	2
Two-roomed	..	..	..	..	3
Three-roomed	..	..	..	..	7
Four-roomed	..	..	..	..	56
Five-roomed	..	..	..	..	27
Six-roomed	..	..	..	..	195
Seven-roomed	..	..	..	..	13
Eight-(and over)-roomed	..	..	..	..	15
Common lodging-house	..	..	..	..	2
No record	..	..	..	..	10
Total					330

**Overcrowding.**—There was a definite record of overcrowding in forty-one instances.

**Sanitary Conveniences.**—243 of the houses were provided with water closets, 50 with tub closets, and 27 with privy ashpits ; no record 10.



**Sleeping Accommodation.**—The home accommodation was found to be as follows :—

(a) Patients with separate bed and separate bedrooms	103
(b) Patients with separate bed, no separate bedroom	34
(c) Patients with no separate bed .. ..	177
(d) No record .. .. .	16

The percentage of patients having a separate bed and bedroom was 31·2, a decrease of 5·7% from that of the previous year.

### **Institutional Treatment.**

(a) *Borough Sanatorium.*—The Tuberculosis Wards were opened on May 11th, 1911, and had dealt with 1,455 cases up to the end of 1919. 188 cases were admitted during 1919 : 117 males and 71 females.

(b) *Cases of Pulmonary Tuberculosis treated at the Children's Hospital* during the year ended December 31st, 1919 = 6 (3 discharged as “relieved,” and 3 “stationary”). In addition, there were 6 doubtful cases, 3 of which were discharged “cured,” and 3 as “relieved”).

(c) *Number of cases of Pulmonary Tuberculosis admitted to Derby Union Workhouse* during the year 1919 = 44 (26 males and 18 females).

(d) *Cases of Pulmonary Tuberculosis treated at the Victoria Home of Rest* during 1919 :—

In Home, January 1st	...	...	4
Admitted during the year	...	...	19
In Home, December 31st	...	...	6

(e) *Cases treated at the Derbyshire Royal Infirmary* :—During the year 57 cases of Pulmonary Tuberculosis were admitted to this Institution (32 males and 25 females). Of this number 15 cases (9 males and 6 females) were admitted from districts outside the Borough of Derby. The following particulars refer to the 42 Derby cases (23 males and 19 females).

Admitted.	Relieved.	Not Relieved,	Died.	In Hospital at end of year,
42	36	2	2	2

## OTHER FORMS OF TUBERCULOSIS.

**Notification.**—The total number of notifications of other forms of Tuberculosis received at the Health Office during 1919 was 101, of which 14 were re-notifications, leaving a net total of new cases during 1919 of 87. This number is a decrease of 1 new notification from the number for the previous year. There were 241 cases under treatment at the end of 1918, making a total of 328 dealt with during 1919.

The number of notifications received of other forms of Tuberculosis includes 23 Poor Law cases, while 31 were patients of Institutions in the town.

Twelve of these 87 cases died before the end of the year. The total number of deaths registered was 26, some of which had not been notified, while others had been notified before 1919.

**Parts Affected.**—The parts affected of the 87 new cases are shown in the following table :—

Cervical Glands	..	31	Tibia	..	..	1
Peritoneum	..	10	Hip and Scapula	..	1	
Hip	..	6	Elbow Joint	..	1	
Intestines	..	6	Knee Joint	..	1	
Meninges	..	4	Arm and Left Leg	..	1	
General Tuberculosis	..	3	Wrist	..	1	
Skin	..	3	Finger	..	1	
Spine	..	2	Axillary Glands	..	1	
Femur	..	2	Testicle	..	1	
Ankle	..	2	Eye and Cervical Glands	1		
Foot	..	2	Ischio-Rectal Fossa	..	1	
Bladder	..	2	Abcess in Chest Wall	1		
Rib	..	1				
Shoulder	..	1				
				Total	87	

**Cases under Treatment.**—There were 318 notified cases of other forms of Tuberculosis under treatment at the end of 1919.

**Ward Distribution of notified cases and of deaths registered:—**

	Cases Notified.		Deaths			Cases Notified.		Deaths.	
Abbey	..	7	..	2	King's Mead	..	5	..	4
Arboretum	..	2	..	2	Litchurch	..	7	..	1
Babington	..	4	..	2	Markeaton	..	5	..	1
Becket	..	4	..	1	Normanton	..	8	..	0
Bridge	..	2	..	0	Osniaston	..	5	..	1
Castle	..	2	..	2	Pear Tree	..	6	..	2
Dale	..	10	..	4	Rowditch	..	7	..	1
Derwent	..	4	..	0		—		—	—
Friar Gate	..	9	..	3	Totals	..	87	..	26
						—		—	—

**Age and Sex.**—The age incidence of persons notified in 1919 is shown in Appendices I. and Ia. There were 46 males and 41 females notified.

**Occupations.**—The occupations of the patients are summarised as follows:—

Textile workers 5 cases, workers in wood, stone, and metal 2; domestic duties 8, indoor occupations 11, labourers 2, other occupations 2; no record 1, Children 56. Total 87.

**Schools.**—Thirty-two of the 56 children were of school age, and attended the following schools:—Ashbourne Road and St. Joseph's 3 each; Clarence Road, Osmaston, Pear Tree Council, St. Andrew's, St. Chad's and Traffic Street 2 each; All Saints', Christ Church, Nuns Street, Orchard Street, St. Anne's, St. Dunstan's, St. James' Higher Grade, St. James' Road, and St. Paul's 1 each; Private School 1; no record 4.

**Previous Illnesses.**—Former illnesses are recorded in 58 of the 87 cases, viz.:—Measles 34, Whooping Cough 23, Bronchitis 16, Pneumonia 16, Pleurisy 12, Accidents 10, Diarrhoea 9, Influenza 8, Abscesses 6, Hæmoptysis 4, Epilepsy 3, Chicken-pox 3, Hæmaturia, Appendicitis, Rickets and Erysipelas 1 instance each.

**Housing.**—The Health Visitors were able to obtain information about the housing accommodation as follows :—

Houses.				Cases.
Two-roomed	..	..	..	2
Three-roomed	..	..	..	1
Four-roomed	..	..	..	15
Five-roomed	..	..	..	4
Six-roomed	..	..	..	50
Seven-roomed	..	..	..	5
Eight-(and over)-roomed	..	..	..	2
No record	..	..	..	8
Total				87

**Overcrowding.**—There was a definite record of overcrowding in twenty-one instances.

**Sanitary Conveniences.**—Information as to the character of the conveniences was obtained as follows :—

65 houses were provided with water closets.			
9	„	„	tub closets.
7	„	„	privy ashpits, and in
6 no record was obtained.			
Total	87		

**Sleeping Accommodation.**—The home accommodation was found to be as follows :—

(a) Patients with separate bed and bedroom	..	21
(b) Patients with separate bed, no separate bedroom		15
(c) Patients with no separate bed	.. ..	43
(d) No record	.. ..	8
Total		87

### **Institutional Treatment.**

(a) *Borough Sanatorium.*—The first case of non-Pulmonary Tuberculosis was admitted on March 21st, 1913, and 148 cases had been dealt with up to the end of 1919. 11 cases were admitted during 1919 (6 males and 5 females).

(b) *Cases of Non-Pulmonary Tuberculosis treated at the Derbyshire Hospital for Sick Children during the year ended December 31st, 1919 :—*

				Admitted.	Cured.	Relieved.	Unrelieved.	Died.	In Hospital at end of year.
Tuberculous	Sinus	..	..	2	..	2	..	..	..
„	Hip	..	..	2	1	..	..	..	1
„	Spine	..	..	9	..	9	..	..	..
„	Knee	..	..	6	1	5	..	..	..
„	Ankle	..	..	2	..	1	1	..	..
„	Meningitis	..	..	3	..	..	..	3	..
„	Peritonitis	..	..	5	..	1	1	1	2
„	Urinary System	..	..	1	..	1	..	..	..
„	Glands	..	..	6	2	4	..	..	..
„	Abscesses	..	..	3	3	..	..	..	..
„	Uleer	..	..	2	1	1	..	..	..
General	Tuberculosis	..	..	2	..	..	1	1	..
Totals	..	..	..	43	8	24	3	5	3

In addition to the above, one doubtful case of lupus was treated at this Institution, and was discharged as “relieved.”

(c) *Cases treated at the Union Infirmary.*—Number of cases of non-Pulmonary Tuberculosis admitted to Derby Union Workhouse during the year 1919=8 (3 males and 5 females).

(d) *Cases treated at the Derbyshire Royal Infirmary.*—During the year 101 cases of Non-Pulmonary Tuberculosis were admitted to this Institution (52 males and 49 females). Of this number 58 cases (32 males and 26 females) were admitted from districts outside the Borough of Derby. The following particulars refer to the 43 Derby cases (20 males and 23 females) :—



	Admitted.	Cured.	Relieved.	Not relieved	Died.	In Hospital at end of year.
Tuberculosis Peritonitis ... ..	3	...	...	..	3	...
„ Meningitis ... ..	2	...	...	..	1	1
„ Glands of Neck ...	11	1	9	..	...	1
„ Adenitis .. ..	1	1	..	..	..	...
„ Axillary Glands ...	1	..	1	..	..	...
„ Abdominal Glands	1	..	1	..	..	...
„ Abscesses ... ..	4	1	3	..	...	...
„ Skin ... ..	5	...	4	1	...	...
„ Spine ... ..	1	...	1	..	...	...
„ Ribs ... ..	3	1	2	..	...	...
„ Hip ... ..	5	1	3	1	...	...
„ Foot ... ..	2	1	1	..	...	...
„ Ileum .. ..	1	1	..	..	...	...
„ Wrist .. ..	1	..	1	..	...	...
„ Shoulder .. ..	2	1	..	..	...	1

### SANATORIUM REPORT.

Remaining in Sanatorium December 31st, 1918	...	29
Admitted during 1919	...	199
		228
Number discharged 1919	...	170
Number who have died in Sanatorium during 1919	...	9
		179
Remaining under treatment on December 31st, 1919	...	49

Average stay in Sanatorium :—

(a) Fatal Cases (9) ... .. 70 days.

(b) Cases discharged during  
1919 (170) ... .. 94 „

The number of cases admitted was an increase of 46 upon the number for the year 1918.

The need of additional accommodation has been referred to in previous reports.

## AGE GROUPS OF TUBERCULOSIS CASES ADMITTED.

Years.	Males.	Females.	No. of Patients.
0—10	35	13	38
10—15	9	11	20
15—20	4	8	12
20—25	15	17	32
25—30	15	7	22
30—40	36	14	50
40—50	16	6	22
50—60	3	0	3
	<hr/> 123	<hr/> 76	<hr/> 199

188 of the 199 patients were cases of Pulmonary Tuberculosis 3 with complications, viz.:—Diabetes 2, Tuberculous Cervical Glands 1.

## NON-PULMONARY TUBERCULOSIS ADMITTED.

Intestines	..	..	4	Knee	..	..	..	1
Cervical Glands	..	..	2	Wrist	..	..	..	1
Peritoneum	...	...	1	Hand	...	...	...	1
Sternum	..	..	1					—
				Total	..			11
								—

**Summary of Results.**—The condition of the 170 discharged patients is summarised as follows:—

	Adults.	Children.
Much Improved	11	14
Improved	61	19
Slightly improved	9	7
Stationary	21	15
Slightly worse	1	1
Worse	10	1
Totals	<hr/> 113	<hr/> 57

Fifty-four adult patients progressed sufficiently to reach the full stage of graduated exercise and labour.

**Insured Cases.**—During the year 1919, 113 cases were admitted to the Sanatorium through the Insurance Committee, of which number 29 were still in the Sanatorium at the end of the year; of the remaining 84 cases:

27 are well and working.

48 are unfit for work,

5 have died, and

4 have left the town.

The first insured patient was admitted on August 3rd, 1912. Between that date and the end of 1918, 573 insured patients were admitted to the Sanatorium. Their condition at the end of 1919 is summarised as follows:—

254 are well and working,

81 are unfit for work,

192 have died, and

36 have left the town.

The average stay in the Sanatorium of the 113 cases admitted during 1919 was eleven weeks.

## TUBERCULOSIS DISPENSARY REPORT, 1919.

### SUMMARY.

Number of Clinics held	...	...	...	...	192	
Total number of patients attending Clinics				...	1021	
Total number of attendances			...	...	4450	
Greatest number of attendances at any Clinic				...	57	
Number of insured persons attending Clinic				...	421	
Number of attendances of insured patients				...	2025	
Number of persons who received tuberculin treatment	..	..	...	..	..	9

The tuberculins used were P.T.O., T.R., and B.E.

Since July, 1912, 3,730 patients have attended the Dispensary, of which number 491 attended for the first time in 1919. These patients were sent as follows :—

By private practitioners .. .. .	90
From Institutions .. .. .	15
By Education Authorities (Attendance Officers, etc.)	7
Specially referred by the Insurance Committee ..	100
Attended on own initiative (or in the case of children brought by parents) .. .. .	76
Referred by Health Staff (Medical Officers, Health Visitors, School Nurses, etc. .. .. .	203
	<hr/>
	491

Included in the 491 new cases were 123 “contacts,” of which number 30 were found on examination to be suffering from tuberculosis.

**Visits to Tuberculosis Cases.**—During the year 1919, 2,547 visits were paid by the nurse engaged on tuberculosis work, and 50 special visits were made by the Tuberculosis Officer (Dr. R. B. Berry). As a result of the nurse’s visits, the following sanitary defects were found and subsequently remedied.

Rooms in bad repair .. 16	Fixed windows .. 2
Rooms requiring cleansing 13	Dampness .. .. 2
Defective roofs and ceilings 6	Offensive accumulations 1
Drains choked .. .. 3	Trough closet requiring cleansing .. .. 1
	<hr/>
	Total .. 45

**Overcrowding** to a greater or less extent was discovered in sixty-two instances; but owing to the housing situation, little could be done to remedy this cause of complaint.

**Domiciliary Treatment.**—During the year 1919, 56 tuberculous patients were recommended by the Insurance Committee for domiciliary treatment, of which number thirteen patients were also recommended for ancillary treatment (extra nourishment in

the form of milk and eggs). One patient who had previously been granted domiciliary treatment was also granted ancillary treatment during the year.

**Shelters.**—There are at present nine shelters owned by the Corporation for the use of Tuberculous patients, all of which were in use at the end of 1919.

### AFTER-CARE (TUBERCULOSIS).

During the year the following cases were dealt with by the Derby Tuberculosis and After-Care Committee :—

1. (Discharged Soldier) separate sleeping accommodation arranged for, and bedding provided.
2. (Discharged Soldier). Pillows and bed-rest provided.
3. (Girl) Railway fare paid to enable her to spend holiday on farm.
4. Change of occupation arranged for.

On May 23rd, 1919, a lecture was held under the auspices of the Derby Insurance Committee, when Mr. P. C. Varrier Jones, the Medical Officer for the Papworth Colony, spoke on "Colonies for the tuberculous, an After-care problem."

### THE CHARITY ORGANISATION SOCIETY.

Cases of hardship in connection with tuberculous persons are referred by this Society to the After-Care Committee as a general rule, but in some few cases ancillary treatment in the form of allowance for extra food is given. Occasionally arrangements are made for the transfer of patients to the Hahnemann Home, Bournemouth. Two Derby cases were thus dealt with during 1919.

### (3.)—VENEREAL DISEASES.

**Treatment.**—The accompanying Return on pages 82 and 83, shows the work done at the Treatment Centre at the Derbyshire Royal Infirmary, and gives particulars of *all* cases treated, sub-divided according to the districts in which the patients live,



**RETURN relating to all persons who were treated at the Treatment Centre at the Derbyshire Royal Infirmary, Derby, during the year ended 31st December, 1919.**

	Syphilis		Soft Chancre.		Gonorrhœa.		Con- ditions other than Venereal		TOTAL.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
1. Number of persons who, on the 1st Jan. uary, 1919, were under treatment or observation for:—	62	43	...	...	34	7	2	...	98	50
2. Number of persons dealt with during the year at or in connection with the out- patient Clinic <i>for the first time</i> and found to be suffering from:—										
Syphilis only ... ..	152	71	...	...	...	...	...	...	152	71
Soft chancre only ... ..	...	...	18	2	...	...	...	...	18	2
Gonorrhœa only ... ..	...	...	...	...	278	31	...	...	278	31
Syphilis and soft chancre ... ..	...	...	...	...	...	...	...	...	...	...
Syphilis and gonorrhœa ... ..	10	21	...	...	10	21	...	...	20	42
Gonorrhœa and soft chancre ... ..	...	...	...	...	...	...	...	...	...	...
Syphilis, soft chancre and gonorrhœa ... ..	...	...	...	...	...	...	...	...	...	...
Conditions other than venereal ... ..	...	...	...	...	...	...	106	17	106	17
TOTAL—Item 2 ... ..	162	92	18	2	288	52	106	17	574	163
TOTAL—Items 1 and 2 ... ..	224	135	18	2	322	59	108	17	672	213
3. Number of persons who ceased to attend the out-patient Clinic (a) before com- pleting treatment for:—	33	<sup>2 died</sup> 19	...	...	119	3	...	...	152	24
(b) after completion of a course of treatment, but before final tests as to cure of	40	21	6	...	2	1	Dis- charged for irregu- lar at- tend- ance	...	51	21
4. Number of persons transferred to other Treatment Centres after treatment for	12	4	1	...	8	2	...	...	21	6
5. Number of persons discharged from the out-patient Clinic after completion of treatment and observation for:—	7	2	8	2	68	7	...	...	83	11
6. Number of persons who, on the 1st Jan- uary, 1920, were under treatment or observation for:—	132	87	3	...	122	47	1	3	258	137
TOTAL—Items 3, 4, 5 and 6	224	135	18	2	322	59	1	3	565	199
7. Total attendances of all persons at the out-patient Clinic who were suffering from:—	2806	1952	10	...	9200	1435	64	12	12080	3399
8. Aggregate number of "In-patient days" of treatment given to persons who were suffering from:—	60	267	24	...	115	524	...	9	199	800
9. Examinations of Pathological material:—	For detection of									
	Spiro- chetes		Gono- cocci		Other Organ- isms		For Wasser- mann Reaction.			
	(a) Specimens which were examined at, and by the Medical Officer of the Treatment Centre ... ..		9		24		1		...	
	(b) Specimens from persons attending at the Treatment Centro which were sent for examination to an approved laboratory		52		531		5 Comple- ment Fixation.		732	

Statement showing the services rendered at the Treatment Centre during the year, classified according to the areas in which the patients resided.

Name of County or County Borough (or Country in the case of persons residing elsewhere than in England and Wales)	Derby Borough.	Derby County	Notts. City.	Notts. County.	Staffs. County.	Leicester County.	Yorks. County (W. Riding.)	TOTAL
A. Number of persons from each area dealt with during the year at or in connection with the out-patient Clinic <i>for the first time</i> and found to be suffering from:—								
Syphilis ... ..	153	97	1	...	2	...	1	254
Soft chancre ... ..	10	9	...	...	1	...	...	20
Genorrhœa ... ..	233	102	...	2	2	1	...	340
Conditions other than venereal ... ..	81	40	...	1	...	1	...	123
<b>TOTAL</b> ... ..	<b>477</b>	<b>248</b>	<b>1</b>	<b>3</b>	<b>5</b>	<b>2</b>	<b>1</b>	<b>737</b>
B. Total number of attendances at the out-patient Clinic of all patients residing in each area ... ..	<b>12689</b>	<b>2720</b>	<b>21</b>	<b>6</b>	<b>40</b>	<b>2</b>	<b>1</b>	<b>15479</b>
C. Aggregate number of "In-patient days" of all patients residing in each area ... ..	<b>319</b>	<b>673</b>	<b>...</b>	<b>...</b>	<b>7</b>	<b>...</b>	<b>...</b>	<b>999</b>
D. Number of doses of Salvarsan substitutes given in the:—								
1. Out-patient Clinic ... ..	1283	847	12	...	14	...	1	2157
2. In-patient Dept. ... ..	(In-patients	attend	O.P. Clinic	for				
to patients residing in each area.	Salvarsan	substitutes).						
E. Give the names of Salvarsan substitutes used in the treatment of syphilis and the usual initial and final doses ... ..	Kharsivan .3 gr. and 45gr. Novarsenobillon .45gr. (.3 in later cases)—75							
F. State the number of doses of Salvarsan substitutes usually given in a full course of treatment ... ..	Seven.							
G. State in what proportion of cases, approximately, Salvarsan substitutes are used in the treatment of syphilis ... ..	97%							
H. State the nature of tests applied in deciding as to discharge of patients referred to in Item 5 on previous page ... ..	<p>Acute Gonorrhœa. Not until urine has been clear three weeks, the passage of a sound, and examination of Pustule, and submitting specimen to Laboratory. Patients ordered alcohol and usual diet for last week of observation. No complement fixation tests are carried out at the Laboratory where specimens are sent.</p> <p>In the case of Syphilis: No patients are discharged until after they have been under observation two years for a minimum, and not then unless there has been a complete absence of clinical signs and the Wasserman test has remained negative. Cases of old Syphilis are not discharged "cured," and the Arsenic treatment is not pushed.</p> <p>Chronic Gonorrhœa. After two or three Bacteriological reports negative to Pus and Gonococci. Treatment then ceases for three weeks and further examinations are then made.</p>							

**Bacteriological Examinations.**—During the year 34 specimens were examined for spirochetes, 492 specimens examined for Gonococci, and 656 blood specimens for the Wasserman reaction. The following are particulars of these examinations :—

Nature of Test.		Posi- tive.	Nega- tive.	Doubt- ful.	Total.
For detection of Spirochetes ...	For Treatment Centre	16	15	...	31
	For Practitioners	...	3	...	3
For detection of Gonococci ...	For Treatment Centre ...	125	27	...	395
	For Practitioners	11	85	1	97
For the Wasser- man Reaction	For Treatment Centre	192	277	1	470
	For Practitioners	70	113	3	186
Total Number Examined ...		414	763	5	1182

Arrangements have been made for the supply from the Derby Health Office of Salvarsan, Galyl, Novarsenobillon, &c., to certain practitioners in the town.

It was reported during the year that a druggist in the town had supplied medicine to a patient suffering from Venereal Disease. This was considered by the Health Committee, who instructed the Town Clerk to write cautioning the druggist.

## V.—MATERNITY & CHILD WELFARE.

### (1).—MIDWIVES.

#### MIDWIVES ACT, 1902.

In accordance with the requirements of the Midwives Act, 55 women, who were registered as midwives, gave notice of their intention to practice within the boundaries of the Borough. Eleven of these were women who were admitted to the roll on account of their having been in bona-fide practice for twelve months prior to July 31st, 1902. The remainder (44) include 14 connected with the Royal Nursing Institution and 7 members of the Health Department the rest (23) being the certificated women practising privately.

Fifty-four visits were paid to midwives practising outside public institutions.

During the year, in accordance with the rules of the Central Midwives Board, 364 reports were sent to the Medical Officer of Health, stating that a midwife had to send for medical aid. In 223 instances help was sought on behalf of the condition of the mother, and in 141 cases for the baby. Malpresentation (22 cases), prolonged labour (51 cases), ruptured perineum (28 cases), and hæmorrhage, ante-partum or post-partum (11 cases) were the chief reasons for sending for a doctor on the mother's behalf. Premature birth and feebleness (46 cases), Ophthalmia (16 cases). Convulsions (10 cases), and malformations (4 cases) were the principal causes in the case of the infant.

Twenty-three interviews with midwives were held by the Superintendent of Midwives for various reasons, including infringements of the rules.

During the year the Maternity and Child Welfare Sub-Committee investigated the following contraventions of the Act :—

	Instances.		
Failure to notify Ophthalmia Neonatorum	..	..	6
Failure to send Medical Help Record	..	..	1
Other reasons	..	..	1



In these cases the midwives appeared before the Committee and were cautioned.

In another case a complaint had been made by a patient's relative, as to alleged refusal of midwife to attend; the Committee considered the matter and accepted the midwife's explanation.

In addition to the above, enquiries and letters of caution were sent to midwives as follows.—

Insufficient or incorrect particulars in Birth Notification	5
Failure to notify birth .. .. .	1
Delay in notifying birth .. .. .	1
Failure to notify still-birth .. .. .	1
Failure to notify birth; also to send medical help record ..	1
Failure to send medical help record .. .. .	3
Failure to notify ophthalmia neonatorum .. .. .	3
Still-birth notified as birth .. .. .	2
Birth notified as still-birth .. .. .	1
Refusal to attend confinement .. .. .	1
Failure to attend on the 3rd and 5th days .. .. .	1
Giving wrong advice .. .. .	1
Failure to send clothes to be disinfected after Puerperal Fever	1
Requesting clothes to be sent for disinfection after other infectious diseases .. .. .	2

**Midwives' Act, 1918.**—Under Section XIV. of this Act, arrangements were made with the local medical practitioners to act when called in by a midwife in case of any emergency. Under this arrangement 59 emergency cases were attended during the year, the total fees paid to the practitioners concerned being £86 15s. 6d.

**Maternity Fees.**—The Health Committee has sanctioned the payment of maternity fees for necessitous women requiring institutional treatment. During 1919 the sum of £25 4s. 0d. was paid in respect of two such patients.

**Still-births.**—The number reported to the Local Supervising Authority was 82, viz. :—17 by medical practitioners, and 65 by midwives. According to the returns of the Derby Cemeteries there were 108 burials of still-born children during the year.



## (2).—MOTHERS AND CHILDREN.

## ANTE-NATAL CLINIC.

This clinic is held on Friday mornings, at the Health Offices, and commenced on July 26th, 1918. During the year 1919, fifty clinics were held, at which 248 women made 410 attendances. At the end of the year provision was made for dental treatment in connection with this clinic. Twenty women were referred for this treatment, but only eight availed themselves of it.

One hundred and seventy-four specimens of the urine of expectant mothers were examined at the Health Office during 1919.

Better accommodation for these clinics is needed; the rooms utilised at the Health Office can only be considered of a temporary and makeshift character.

## MUNICIPAL HOME FOR BABIES.

A Municipal Home for Babies was established in St. Helen's Street in 1918, but did not commence work until the beginning of 1919, the first case being admitted on the 11th February.

The Nursing Staff numbers five, which includes the Matron and one Sister, whilst the domestic staff numbers three.

Probationers are trained in the Home: (a) Nurses from the Borough Isolation Hospital and Sanatorium receive two months' training at the end of their training in the latter Institutions, and (b) others are taken on for a period of six months' training. The number of these varies from one to three at a time.

In addition, Education Classes for Mothers are held once a week, whilst senior girls from the Public Elementary Schools in the Borough attend twice a week in small classes.

Accommodation is provided for 20 children, and the types of cases admitted are generally as follows :—

- (a) Cases in which the mother has to go to work.
- (b) Instances where the mother has died.

- (c) Cases where the mother is suffering from Pulmonary Tuberculosis, Puerperal Fever, or other Infectious Disease ; or where the mother has to be admitted to an Institution for operation, etc.
- (d) Cases in which suitable diet for the baby has not been found, in order that this may be discovered after observation.

## SUMMARY OF ADMISSIONS.

Total admissions during 1919 .. ..	55
Number discharged during 1919 ..	38
Number died in Home during 1919 ..	4
	<hr/> 42
Remaining in Home on 31st December, 1919	13
	<hr/>

In the four fatal cases the causes of death were certified as follows :—Marasmus 2 ; Prematurity 1 ; and Gastro-Enteritis, Malnutrition 1.

The average stay in the Home was (a) fatal cases, 58 days and (b) others, 22 days.

## THE UNMARRIED MOTHER AND HER CHILD.

The arrangements made in 1918 for dealing with the above were continued during 1919. Miss Longdon, the President of the Committee formed in 1918 to deal with the question, has again granted the greater part of her own house (" Knighton ") free of rent, rates, coal and lighting, to be used as a Maternity Home. There is accommodation for 20 maternity cases, with 26 additional cots. A grant of £86 2s. 0d. was made in 1919 by the Corporation towards expenses.

I am indebted to Mr. R. Grantham, the Honorary Secretary to the Committee, for the following particulars of the work done in 1919 :—

Number of Maternity Cases treated during the year ..	31
Mothers with infants discharged .. ..	8
Mothers with infants retained .. ..	4
Infants born and retained .. ..	17
Infants died .. . . . .	2
	<hr/>
Children dealt with apart from Mothers ..	19
	<hr/>

In addition to Derby cases, fifteen cases were admitted from outside districts, namely, from Alfreton, Ashbourne, Burton, Chesterfield, Exeter, Loughborough, Mickleover, Nottingham, Sheffield, Stapleford and Turnditch.

## MOTHERS' AND BABIES' WELCOMES.

### A.—MUNICIPAL CENTRES (4).

1919.	Mon. Alvaston	Tues.* Rose Hill Street.	Wed.* St.Helen's Street.	Thurs. Dean Street.
Number of Welcomes held ... ..	47	46	47	48
Number of babies brought to Wel-				
comes (under 2 years of age) ...	150	415	381	160
Ditto (2 to 5 years) .. ..	57	108	122	62
Number of attendances of babies at				
Welcomes ... ..	904	2394	1635	942
Number of examinations made by				
doctor .. ..	684	1336	1181	719
Average weekly number of babies				
weighed ... ..	19	52	35	20
Average attendance of each baby ...	4	5	3	4
Number of attendances of mothers at				
Welcomes ... ..	1227	2855	2007	1148
Average weekly attendances of mothers	26	62	43	24

\* Owing to the large numbers of mothers and babies attending the Tuesday and Wednesday Welcomes, an additional session is held on these mornings. The figures given, however, refer to the whole day's work in each case.

**"Daily Sketch" Baby Competition.**—One hundred and twenty-seven entries for the above were received in respect of babies attending these Welcomes, and it is satisfactory to note that one of the children (a girl) attending the Rose Hill Street Welcome, was the winner of a silver spoon.

### B.—NON-MUNICIPAL WELFARE CENTRE.

**WELCOME AT THE ROYAL NURSING INSTITUTION, LONDON ROAD.**—This Welcome, which commenced its work in 1917, is under the supervision of Mrs. Doudney, Lady Superintendent at

the Institution. The following particulars refer to its work during 1919 :—

Number of Welcomes held	..	..	..	49
Number of Mothers attended	..	..	..	229
Total number of attendances of mothers	..	..	..	1644
Number of babies attended	..	..	..	229
Total number of attendances of babies	..	..	..	1587

The Corporation Welfare Officer (Dr. Mary Bird), is in attendance at this Welcome each Friday afternoon.

**Baby Incubators.**—The Health Department keeps in stock three “Huddersfield” baby incubators, which have been of great service in certain cases of premature birth. These incubators can easily be employed in an ordinary house. One of the Corporation Health Visitors is usually in regular attendance to supervise treatment. Nineteen infants were placed in these incubators during the year. At the end of the year, two children were still receiving this treatment, eight had died, whilst the remainder (9) were reported as being in a satisfactory condition. This result, considering the apparently hopeless condition of most of the infants when placed in these incubators, may be regarded as very satisfactory.

## WORK OF THE HEALTH VISITORS.

### SUMMARY.

Visits <i>re</i> Births	...	...	...	...	...	2,553
Re-visits <i>re</i> Births	...	...	...	...	...	10,953
Visits <i>re</i> Still-births	...	...	...	...	...	80
„ Deaths of Infants under 1 year	...	...	...	...	...	157
„ Tuberculosis	...	...	...	...	...	2,547
„ Whooping Cough (deaths)	...	...	...	...	...	6
„ Diarrhœa (deaths)	...	...	...	...	...	9
„ Cases of Puerperal Fever	...	...	...	...	...	18
„ „ Whooping Cough	...	...	...	...	...	4
„ Midwives	...	...	...	...	...	54
„ Ophthalmia Neonatorum	...	...	...	...	...	554
„ Special visits	...	...	...	...	...	681
„ Enquiries	...	...	...	...	...	157
„ Outworkers	...	...	...	...	...	404

Visits <i>re</i> Workrooms	...	...	...	...	...	166
„ Expectant Mothers	...	...	...	...	...	207
„ Incubators	..	..	..	..	..	49
Miscellaneous visits	...	...	...	...	...	276
Unsuccessful visits (out, removals, etc.)	...	...	...	...	...	1028
Mothers' Welcomes (mornings and afternoons)	..	..	..	..	..	277
Assisted at Tuberculosis Clinics (mornings, afternoons and evenings)	..	..	..	..	..	192
Assisted at Ante-Natal Clinics	...	...	...	...	...	50

### (3).—DISEASES AFFECTING MOTHERS AND YOUNG CHILDREN

#### PUERPERAL FEVER.

Cases Notified	..	..	19 (including 5 strangers)
Deaths	..	..	6 (including 1 stranger)

With regard to the Derby cases, a medical man was present at the parturition in three instances, a midwife attended in four cases, while seven cases were attended by both midwife and doctor; of the five “strangers,” four were attended outside the Borough, and were brought into Derby suffering from Puerperal Fever, while the other was attended in Derby by both a doctor and a midwife.

**Duration of Pregnancy.**—This was full time in 11 of the cases. In the case of the remaining three the duration of pregnancy was respectively 7 months, 6½ months, and 5 months.

**Parity.**—Five of the 14 patients were *prima-paræ*, two were 2-para, one 3-para, two 4-para, one 5-para, one 7-para, one 9-para, and one 10-para.

**Causation.**—Certain predisposing factors may be mentioned in some of the cases :—

Ante-partum hæmorrhage	..	..	in 3 cases.
Use of abortifacients	...	..	„ 1 case.
Local Discharge	..	..	„ 1 „
Dirty house and intemperate habits	..	..	„ 1 „
Local Discharge, Verminous Conditions			
and dirty house	..	..	„ 1 „
Dirty house	..	..	„ 1 „



## OPHTHALMIA NEONATORUM.

Cases Notified .. .. 135

The number of cases notified is 57 more than the number in 1918. Eight of the children were illegitimate.

**Parturition.**—This was normal in 120 instances, prolonged in 5, instrumental in 2 and precipitate 4. Breech presentation 3, doubtful 1.

**Parity.**—In 47 instances the mother was a primipara.

Two-para ..	18	Seven-para ..	6
Three-para ..	24	Eight-para ..	5
Four-para ..	13	Nine-para ..	2
Five-para ..	12	Ten-para ..	2
Six-para ..	6		

**Miscarriages.**—There was a history of miscarriage in eleven instances, in 10 cases one only, and in one case five miscarriages had occurred previously. In two instances the history was doubtful.

**Vaginal Discharges.**—There was a history of Vaginal Discharge in the case of 44 of the mothers, but in 14 of these it was stated to be of a slight nature, and in 4 of the cases, there was a history of profuse discharge. The evidence was doubtful in 17 instances.

**Ophthalmia in Previous Children.**—A history of this was obtained in twenty-six instances, the history being doubtful in one case. In one case the two previous children had had Ophthalmia Neonatorum.

**Personal and Domestic Cleanliness.**—This was found by the Health Visitors to be as follows :—

Unsatisfactory or bad in 3 cases.  
 Fair in 20 cases.  
 Satisfactory in 75 cases.  
 Good in 20 cases.  
 Very good in 12 cases.  
 Doubtful in 2 cases.  
 No record in 3 cases.

**Institutional, &c., Treatment.**—57 of the babies were treated at the Derbyshire Royal Infirmary (3 in-patients, 54 out-patients), 24 were treated at the Children's Hospital (2 in-patients, 22 out-patients); 18 were treated at the Nightingale Nursing Institution, while one was admitted to isolation wards of the Borough Infectious Diseases Hospital. 32 babies were treated at home by private practitioners. No treatment by medical men was given in 3 cases, home treatment by boracic lotion being used.

**Results.**—Five of the babies died either before the end of 1919, or early in 1920. The causes of death were respectively :—

Spastic Paraplegia and Ophthalmic Neonatorum,  
Debility from birth,  
Broncho-pneumonia,  
Acute Bronchitis,  
Atresia of rectum and acute obstruction.

Enquiries as to the results in the other 130 cases show :—

110 satisfactory.

1 satisfactory, but right eye smaller than left.

1 right eye blind; left impaired.

1 slight strabismus.

1 slight blepharitis.

1 slight corneal opacity.

1 slight discharge

2 watery discharge.

4 eyes weak.

No information was obtainable regarding eight cases, as these had left the town.

#### MEASLES.

Notifications (Measles 3,507, German

	Measles 551) .. ..	4,058
Deaths .. .. .		19
Case Mortality .. .. .		0·46%
Rate per 1,000 living .. .. .		0·15

Measles and German Measles were epidemic in Derby from February, 1919, to February, 1920, the earlier outbreak being chiefly one of German Measles, and the latter of true Measles.

The figures given in this report refer only to the cases occurring up to the end of the year 1919. A full report on the epidemics as a whole is given as an appendix.

**Notification.**—The quarterly incidence is shewn in Table V., page 54. The highest total in one month was 966 in October, and the highest total in one week was 321 in the week ending October 25th. The 4,058 cases of Measles and German Measles were notified as follows :—

	Measles.	German Measles
By Medical Practitioners .. ..	2,171	387
„ Parents .. ..	506	26
„ School Teachers .. ..	479	115
„ School Nurses .. ..	135	20
„ Health Visitors .. ..	213	—
„ Medical Officers of the Health Dept. .. ..	3	3

**Sex.**—There was a slight preponderance of females notified, there being 1,956 males and 2,102 females. Of the nineteen fatal cases, ten were males and nine females, and all were under five years of age, with one exception, a boy aged six years and ten months, who had also suffered from Diphtheria.

**Schools.**—2,479 of the cases notified (61·1%) were school children, who attended school as follows :—

	Measles.	German Measles.
Public Elementary Schools ..	1,950	318
Secondary Schools .. ..	23	13
Derby School .. ..	15	4
Special School .. ..	—	2
Private Schools .. ..	109	19
Schools outside the Borough ..	25	1
Total .. ..	2,122	357

All the Public Elementary Schools in Derby were affected, but none were closed on account of measles.

**Treatment.**—All the notified cases were visited, either by a health visitor or school nurse, whilst special nursing assistance was given by Nurse Gooseman (health visitor), who paid 868 visits to 298 serious cases. Arrangements were made for the free provision of dried milk in necessitous cases, 10lbs. being supplied to seven cases during the year. Of the 135 cases removed to the Borough Isolation Hospital, 128 were Measles and 7 German Measles.

**Exposure, etc., of Cases of Measles.** — Various offences in connection with measles cases were considered by the Health Committee. In the following cases the mothers of patients appeared before the Committee and were cautioned.

	Instances
Exposure of Measles case .. .. .	2
Exposure of case and failure to notify .. ..	1
Failure to notify cases .. .. .	2
Failure to notify case, also careless supervision ..	1

Two letters of caution were sent to mothers who had allowed their children to go out of doors after an insufficient time from the commencement of illness.

In another case the Health Committee instructed the Town Clerk to send a letter of caution to a mother who had allowed her daughter to visit a house where a case of measles existed.

#### WHOOPING COUGH.

School Notifications .. ..	46
Deaths .. ..	6
Rate per 1,000 living ..	0.05

Six deaths from Whooping Cough were registered in 1919, as compared with 22 in the previous year. All the deaths were of children under five years of age.

**Ages of Fatal Cases.**—See Appendix II.

**Sex.**—Two of the fatal cases were males, and 4 females.

**Season.**—Quarterly Incidence.

1st Quarter-	..	..	..	..	4 deaths.
2nd	„	..	..	..	0 „
3rd	„	..	..	..	2 „
4th	„	..	..	..	0 „

**Ward Distribution.**—No deaths occurred in Arboretum, Babington, Becket, Bridge, Castle, Dale, Friar Gate, King's Mead, Markeaton, Normanton, Osmaston, or Pear Tree Wards.

The deaths occurred as follows :—Abbey 2, Derwent 1, Litchurch 1, Rowditch 2, Total 6.

**Housing.**—The six cases occurred in five households.

Four-roomed	..	..	..	..	2
Five-roomed	..	..	..	..	2
Six-roomed	..	..	..	..	1
Total houses					<hr/> 5 <hr/>

**Cleanliness.**—Personal and domestic cleanliness as found by the Health Visitors at the time of visiting was reported in the 5 households as follows :—Good and satisfactory 2, Fairly Satisfactory 2, No record 1.

**Source of Infection.**—

(a) From children in adjacent house	..	..	..	2
(b) From brothers or sisters not attending school	..			1
(c) Doubtful	..	..	..	3

**School Closure.**—No schools were closed on account of Whooping Cough during the year.

One case of Whooping Cough (non-fatal) was treated in the Borough Isolation Hospital.

**DIARRHŒA.**

Number of Deaths	..	..	9
Rate per 1,000 births	..	..	3.6

**Nomenclature.**—The 9 deaths of children under 2 years of age were certified as due to one or other of the following causes :—Gastro-Enteritis 3, Enteritis 2, Diarrhœa 2, Acute Dyspepsia 1, Intestinal Toxæmia 1, Total 9.



**Complications** were certified as follows :—Vomiting, Marasmus, Malnutrition, Inanition and Convulsions 1 each.

**Ages.**—Seven of these deaths were of children under the age of 1 year, and two between 1 and 2 years.

**Sex.**—Of the fatal cases 3 were males and 6 females.

**Ward Distribution.**—The deaths affected 7 Wards, viz.:—Arboretum 2, Babington 2, Becket 1, Castle 1, Dale 1, King's Mead 1, and Pear Tree 1. No deaths from this disease occurred in Abbey, Bridge, Derwent, Friar Gate, Litchurch, Markeaton, Normanton, Osmaston or Rowditch Wards.

**Feeding.**—Of the 7 children under one year of age two were breast-fed, 2 were hand-fed, and 3 were partly breast-fed and partly fed by hand.

**Season.**—The monthly occurrence of the Diarrhœa deaths was : January 1, February 1, March 1, April 0, May 0, June 0, July 1, August 2, September 0, October 1, November 1, December 1.

The monthly incidence of Diarrhœa shews that August had the highest number (2), as in the previous year, when five out of the 18 deaths occurred during this month.

**Quarterly Incidence.**—Deaths from Diarrhœa and Enteritis (under 2 years of age) per 1,000 births in each quarter of 1919 :—

1st Quarter	..	..	..	=	5.88
2nd „	..	..	..	=	0
3rd „	..	..	..	=	4.46
4th „	..	..	..	=	3.85

#### POLIOMYELITIS.

The case notified was a boy, aged 8 years and 10 months, whose illness was stated to have begun with a convulsive attack affecting the left arm and leg on April 23rd. The case was notified on 4th May. At that time the peroneal group of muscles of the left leg were completely paralysed. The patient was removed to the Derbyshire Royal Infirmary, where he was operated on, in order, it was stated, to relieve pressure upon the brain caused by a bone. The patient's mother stated that he had had some injury to his head four or five years ago. The date of the operation was the 29th April. The patient died on the 11th August, the cause of death being certified as "Cerebral Tumour,"

## VI.—SANITARY ADMINISTRATION.

### (1).—INSPECTIONS, Etc.

#### INSPECTIONS OF WORKROOMS.

Of the 188 workrooms on the register where women and young persons are employed, 36 were notified during 1919. On inspection the following nuisances were found :—

No water to w.c.	..	..	..	..	..	..	2
Rooms require cleansing	..	..	..	..	..	..	1
Fixed windows	..	..	..	..	..	..	1
Total							4

#### INSPECTION OF OUT-WORKERS OR HOME-WORKERS.

Pursuant to Section 107 Factory and Workshop Act, 88 lists of out-workers have been received from the various firms in Derby. Of the out-workers, 191 were engaged in net-mending, 149 in altering, making or finishing wearing apparel, 59 making curtain hangings, 11 making surgical bandages, 9 making stuffed toys, 2 making cardboard boxes, and 1 making brushes. Six lists have been received from other Councils, of out-workers employed by firms in their district, who reside in Derby, and 16 lists have been forwarded to Councils in whose districts out-workers employed by Derby firms reside. During 1919, 1 verbal notice and 6 official notices were served with regard to unwholesome premises. Eight letters were sent cautioning firms for failure to send in lists on the specified date (see also page 41, Table 3).

### (2).—HOSPITAL ACCOMMODATION.

#### HOSPITAL FOR INFECTIOUS DISEASES.

The number of cases admitted was an increase of 101 upon the number for the previous year; an increase in variety of the infectious cases admitted is also to be recorded.

In addition to the extra accommodation required for patients as mentioned in previous reports, more accommodation is needed for the nursing and domestic staffs, in view of present day requirements viz., shorter hours and increased holidays.

In 1919 the Derby Borough Infectious Diseases Hospital was recognised by the University of Manchester under Section 5a of the Diploma of Public Health Regulations.

The management of the Institution has again been carried out with great ability by the Matron (Miss Mitchell).

Sister Coulter (who is in charge of the Diphtheria Pavilion), returned from war service in April, 1919, and was subsequently awarded the Royal Red Cross and the Croix de Guerre. Sister Coulter had previously been mentioned in despatches.

The Nursing Staff numbers (in addition to the Matron) 28 (including 8 allocated to the Sanatorium), and the Domestic Staff totals 19 (including 5 Sanatorium maids). Two probationer nurses left at the end of the year on completing their training, and obtained certificates; while three nurses were successful in obtaining certificates of the Fever Nurses' Association. Two nurses contracted Diphtheria during the year, while four nurses suffered from the following Infectious diseases respectively:—Mumps, Chicken-pox, Pneumonia and German Measles.

#### SUMMARY OF ADMISSIONS.

	Scarlet Fever.	Diph- theria.	Measles & German Measles.	Others.	Totals
Remaining in Hospital, Dec. 31st, 1918 ..	8	16*	—	—	24
Admitted during 1919 .. .. .	107†	150	135	26	418
Number discharged during 1919 .. ..	93	127	111	16	347
Number who have died in Hospital during 1919 .. .. .	1	7	10	9	27
Remaining under treatment on Dec. 31st, 1919 .. .. .	21	32	14	1	68

\* These figures include "contact" or "carrier" cases.

† In addition to the above, three "contacts" were admitted, breast fed babies whose mothers were admitted suffering from Scarlet Fever.

For particulars of the cases included in the "Others" column, see Table VI. on page 55.

Twenty-five cases were admitted with mixed infections (Varicella, etc.).

The total number of admissions was 418, and the number of deaths 27 (case mortality 6·5%). Four of the deaths occurred within 48 hours of admission. Tracheotomy was performed in two cases of Laryngeal Diphtheria, both of whom recovered.

The average stay in the Isolation Hospital was :—

(a) Fatal cases (27)	..	..	11 days.
(b) Cases which recovered (347)	..	41	„

### Hospital Provisioning, 1919.

1919.	Days in Hospital (Patients).	Average Patients per day.	Cost of Provisioning.			Average Cost per Patient per day.*	
			£	s.	d.	s.	d.
1st Quarter	3134	34·82	380	14	10	2	5·15
2nd „	3236	35·56	379	1	9½	2	4·11
3rd „	3193	34·71	389	8	7½	2	5·27
4th „	5332	57·96	492	15	10	1	10·37
Totals 1919	14895	40·81	1642	1	1	2	2·46
Totals for 1918	17026	46·64	1427	19	7½	1	8·12

\*This includes cost of provisioning staff.

### Sanatorium Provisioning, 1919.

1919.	Days in Sanatorium (Patients).	Average Patients per day.	Cost of Provisioning.			Average Cost per Patient per day.*	
			£	s.	d.	s.	d.
1st Quarter	3699	46·10	487	9	11	2	7·63
2nd „	4598	50·52	523	11	9½	2	3·33
3rd „	4532	49·26	554	12	0	2	5·37
4th „	4624	50·26	670	11	2½	2	10·80
Totals 1919	17453	47·82	2236	4	11	2	6·75
Totals for 1918	18639	51·06	1750	11	9	1	10·54

\* This includes cost of provisioning staff.

**(3).—LEGAL SUMMARY.****Local Acts** (containing Sanitary Provisions).

The Derby Waterworks Acts, 1848, 1868, 1873.

The Derwent Valley Water Acts, 1899, 1901, 1904, and 1909.

The Derby Improvement Act, 1879, Part IV.

The Derby Corporation Tramways Act, 1899, Part III.

The Corporation Acts, 1877 (See. 60), 1890, 1901, 1913.

**Acts Adopted.**

Public Health Acts Amendment Act, 1890, Part III., came into operation 20th September, 1899.

Infectious Diseases (Prevention) Act, 1890 (Sees. 7-13), came into operation 20th February, 1902.

Public Health Acts Amendment Act, 1890, Part II., came into operation 12th December, 1904.

Public Health Acts Amendment Act, 1907 (Sees. 19, 22, 23, 25, 28, 30, 31, 33, 34-37, 46, 50-58, 60, 62 to 66), came into operation 3rd March, 1910.

Public Health Acts Amendment Act, 1907 (Section 24 and Part V.), came into operation 9th February, 1915.

**Byelaws, Regulations and Orders.**

1838. Unsound Meat, Nuisances, etc.

1858. Public Baths and Washhouses.

1859. Slaughter-houses.

1859. Nuisances, Snow, Filth, etc.

1877. Water Supply.

1885. New Streets and Buildings.

1890. Common Lodging Houses.

1891. Nuisances (additional).

1859.] Height of Rooms.  
1886.]

1892. Street Stop Taps.

1898. Dairies, Cowsheds, and Milkshops.

1898. Markeaton Baths.

1899. Houses Let in Lodgings.

1904. Public Baths.

1904. Regulations as to Branch Sewers in Main Drainage Area.



- 1907. Expectorating in Public Places, etc., Banana  
Skins, etc.
- 1908. Factory and Workshop Statutory Rules and  
Regulations.
- 1910. Underground Rain-water Cisterns.
- 1910. New Streets and Buildings (additional).
- 1911. Confirming Order of L.G.B. under Sec. 51  
P.H.A.A. Act, 1907, declaring certain trades to  
be offensive.
- 1911. Regulations as to Communications between drains  
and Sewers.
- 1912. The Derby (No. 1) Shops Order, 1912.
- 1913. The Derby (No. 2) Shops Order, 1913.
- 1913. The Derby (No. 3) Shops Order, 1913.
- 1913. Regulations as to Communications between Drains  
and Sewers in Main Drainage Area.
- 1913. Normanton Recreation Ground.
- 1914. For Preventing Waste, etc., or Contamination of  
Water.
- 1914. Boden Pleasance (Children's Playground).
- 1914. Additional General Rules for the Government of  
the Mental Hospital.
- 1916. For the Good Rule and Government of the Borough  
and for the Prevention of Nuisances.
- 1916. Employment of Children and Street Trading.
- 1917. Spitting on Footways.
- 1919. The Derby Shops (No. 4) Order, 1919.
- 1919. The Derby Shops (No. 5) Order, 1919.

#### (4).—BACTERIOLOGICAL EXAMINATIONS.

The following is a summary of the examinations made during 1919.

						Number Positive.
Diphtheria (throat and nose swabbings) ...	3,653	...	...	...	...	406
Sputum examinations ... ..	601	...	...	...	...	95
Widal tests ... ..	10	...	...	...	...	1
Cerebro-spinal fluid (suspected Cerebro-spinal Fever) ... ..	15	...	...	...	...	9
Cerebro-spinal Fever contacts (throat swabbings)	34	...	...	...	...	5

				Number Positive.
Miscellaneous (50) :—				
Urine for tubercle bacilli	..	15	..	4
Pus for tubercle bacilli	.. ..	6	..	1
Pleural fluid for tubercle bacilli		1	..	1
Spinal fluid for tubercle bacilli	..	1	..	0
Gland from Axilla for tubercle bacilli	.. .. .	1	..	0
Sputum for elastic fibres	..	1	..	1
Fæces for Typhoid B.	.. ..	1	..	0
Fæces for Dysentery	.. ..	1	..	1
Fluid from stomach (bacteriological etc., examination)	.. ..	1	..	1
Urine for casts	.. .. .	5	..	2
Urine (bacteriological, etc., exam- ination)	.. .. .	7	..	5
Urine for <i>type</i> of albumen	..	1	..	0
Deposit from urine for organism B. Coli	.. .. .	1	..	1
Urine for pus, etc.	.. ..	1	..	1
Blood for Malaria	.. .. .	1	..	1
Blood for organisms	.. ..	1	..	0
Blood, bacteriological (Meningitis)		1	..	0
Pus for Streptococci	.. ..	2	..	2
Swab from gum for organisms	..	1	..	1
Swab from vulva for organisms	..	1	..	1
		<hr/>		<hr/>
Totals	..	4363		539
		<hr/>		<hr/>

In addition to the above, four blood specimens for Widal tests, and two specimens of cerebro-spinal fluid were sent to Professor Delépine's Laboratory at Manchester, for examination. All were reported negative.

## VII.—HOUSING.

### PROVISION OF HOUSES COMMITTEE.

Chairman—Counsellor Eaton.

Ald. Hart.	Coun. Mrs. Hulse.
„ Wilkins.	„ Innes.
Coun. Domleo.	„ Ling.
„ Farrow.	„ Newbold.
„ Flint.	„ Newton.
„ Grant.	„ Salisbury.
„ Hulse.	„ Walker.

The above Committee was formed early in the year and held its first meeting in April. Considerable progress was made in the acquisition of sites, the giving of contracts for new buildings. etc., and on the 16th December the state of things was as follows, and indicates the amount of progress that had been made towards the necessary provision of new houses so urgently needed in the Borough :—

Total number of houses in course of erection .. ..	68
Foundations and brickwork to ground floor .. ..	32
Brickwork completed .. ..	36
Roofed in .. ..	32
Floor-boards laid .. ..	25
First-floor partitions fixed .. ..	21
First coat of plastering .. ..	14
Plastering completed .. ..	6
Stairease fixed .. ..	5

The above details refer, of course, only to the construction of actual houses on one site (referred to as Site “ A ”), but a considerable amount of work was done in connection with two other sites (referred to as “ B ” and “ C ”) in the direction of laying-out, preparation of roads, etc.

### ALLOCATION OF NEW HOUSES.

In view of the large number of applications for these houses, it became necessary for the Provision of Houses Committee to make a selection of the applicants for priority of occupation. In making this selection, the following conditions and circumstances will be specially considered :—

- (1) The nature and extent of the *overcrowding* under which the applicant and his family are at present living.
- (2) The *size of the family*. Applicants with families receive preference over those who have no children. This principle is contrary to that usually adopted by owners of house property.
- (3) *Tuberculosis*. Patients suffering from this disease, or who have tuberculosis in members of their household, will also be considered to have a prior claim ; as well as the applicants who are compelled to live with their families in households where such cases have been notified. Convalescent tuberculous patients will also receive consideration in order to prevent relapse or the occurrence of the disease in other members of the family.
- (4) *Unhealthy Dwellings*. The occupants of houses condemned as unfit for human habitation, or houses closed for other reasons would naturally have to receive early consideration.
- (5) *Military Service*. This will doubtless receive due consideration.
- (6) The *occupation* of the applicant. Other things being equal, preference will be given to in-door workers.

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**Conversions, Etc.** In addition to the above, it was reported that one building was converted to use as a dwelling house during 1919.

### THE HOUSING OF THE WORKING CLASSES.

With regard to the existing houses in the town, the conditions affecting the Housing Question during 1918 and the preceding years did not show much alteration during 1919, and consequently little was done under the Housing Acts. The fact should not be lost sight of, however, that although nothing could be done in the way of closing unfit houses, repairs and improvements are continually being carried out in the daily work of the Sanitary Inspector's Department, which, although not done under the operation of the Housing Acts, are in reality improvements in the housing conditions, and must therefore be regarded as housing work. A very efficient scheme of systematic inspection of working class dwellings drawn up by Mr. Ford, Chief Inspector, is now in working order within the Borough.

A perusal of the record of the work done by the District Inspectors will shew to what extent improvements in the condition of the houses of the Working Classes have been effected during the year.

Owing to further improvement in matters affecting labour, supply of materials, and the provision of new houses, and with an Inspectorial staff now at full strength, it is hoped that better progress will be made in future.

The necessary repairs were carried out in the case of the house dealt with by legal notice in 1918, and the house may now be regarded as satisfactory.

A block of nine houses in Eagle Street was reported to the Health Committee for action under the Housing Acts, but the matter was deferred as the owner refused to carry out the works required, and as the only alternative was the closing of the houses, the re-housing of the displaced families became the paramount question. It was consequently decided to let the matter stand in abeyance for a time. However, the owner has evidently since changed his mind, and is now doing the necessary works by instalments, so that ultimately the houses may be made fit for habitation.



## COUNTY BOROUGH OF DERBY.

## Appendix I.

### Cases of Infectious Disease Notified during the Year 1919.

NOTIFIABLE DISEASE.	CASES NOTIFIED IN WHOLE DISTRICT.						TOTAL CASES NOTIFIED IN EACH LOCALITY.														Non-Residents.	Total Cases re- moved to Hospital.				
	At all Ages.	At Ages—Years.						Abbey.	Arboretum.	Babington.	Becket.	Bridge.	Castle.	Dale.	Derwent.	Friar Gate.	King's Mead.	Litchurch.	Markenton.	Normanton.			Osmaston.	Pear Tree.	Rowditch.	
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 45.	45 to 65.																			65 and upwards.
Small-pox ...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	
Cholera ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Diphtheria (including Membranous Croup)	263	3	45	141	37	29	5	16	17	10	9	2	8	42	14	21	12	7	26	31	8	28	10	2	150	1
Erysipelas...	80	4	1	6	5	24	21	16	7	8	2	7	1	5	5	8	4	3	9	5	6	2	2	1	1	
Scarlet Fever	129	1	25	71	18	13	1	10	5	8	10	6	16	7	9	4	...	4	6	8	11	7	14	4	107	
Typhus Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric Fever	4	...	...	2	...	2	...	1	1	...	...	...	...	...	...	...	2	...	...	...	1	...	...	...	...	3
Relapsing Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Continued Fever...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	...	...	1	...	...	...	...	...
Puerperal Fever	19	...	...	...	...	17	...	...	2	1	...	...	1	1	...	1	2	1	...	...	1	3	1	5	1	
Cerebro-spinal Fever	5	...	2	...	...	1	...	1	1	1	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	
Polomyelitis ...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Acute Encephalitis Icthaergica	11	...	...	1	10	...	...	...	...	...	...	...	...	...	...	11	...	...	...	...	...	...	...	...	...	7
Acute Polio-Encephalitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pneumonia	194	7	23	25	33	56	34	16	14	12	6	9	6	17	14	17	13	9	12	18	7	10	14	10	1	
Malaria ...	95	...	...	...	29	60	6	...	11	6	5	3	2	9	8	1	10	1	6	11	3	8	9	...	...	
Dysentery	9	...	...	...	2	6	1	...	...	...	1	...	...	...	1	...	...	...	1	1	2	...	2	...	...	...
Trench Fever	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...
Pulmonary Tuberculosis	330	...	1	55	78	160	28	5	28	18	17	23	9	25	18	35	24	21	18	18	16	27	18	...	...	188
Other forms of Tubercu- culosis	87	4	17	36	9	12	6	3	7	2	4	4	2	2	10	4	9	5	7	5	8	5	6	7	...	11
Ophthalmia Neonatorum	135	135	...	...	...	...	...	...	11	8	6	6	9	13	5	4	5	9	7	20	6	8	13	3	2	1
Measles and German Measles	4058	144	1650	2089	115	57	3	...	428	203	160	170	156	212	315	372	204	171	261	279	361	425	200	9	155	
Totals	5422	298	1767	2430	340	438	109	40	536	282	219	243	193	305	435	189	493	276	236	364	388	429	530	280	34	611



## COUNTY BOROUGH OF DERBY.

## Appendix II.

## Causes of, and Ages at Death, during 1919.

CAUSES OF DEATH.	DEATHS IN OR BELONGING TO WHOLE DISTRICT AT SUBJOINED AGES.									TOTAL DEATHS IN PUBLIC INSTITUTIONS IN THE DISTRICT (non-residents included).
	All Ages.	Under 1 year.	1 and under 2.	2 and under 5.	5 and under 15.	15 and under 25.	25 and under 45.	45 and under 65.	65 and upwards.	
Enteric Fever ... ..	...	...	...	...	...	...	...	...	...	...
Small-pox ... ..	...	...	...	...	...	...	...	...	...	...
Measles ... ..	19	5	7	6	1	...	...	...	...	10
Scarlet Fever ... ..	1	...	...	...	1	...	...	...	...	1
Whooping-cough ... ..	6	1	2	3	...	...	...	...	...	...
Diphtheria and Croup ... ..	10	...	1	5	4	...	...	...	...	8
Influenza ... ..	123	7	5	7	6	10	38	34	16	47
Erysipelas ... ..	1	...	...	...	...	...	...	1	...	1
Phthisis (Pulmonary Tuberculosis) ... ..	112	...	1	4	4	19	53	26	5	52
Tuberculous Meningitis ... ..	7	1	1	2	2	...	1	...	...	8
Other Tuberculous Diseases ... ..	19	2	4	...	2	3	5	1	2	14
Cancer, Malignant Disease... ..	137	...	...	...	...	2	10	63	62	49
Rheumatic Fever ... ..	8	...	...	2	2	1	1	...	2	4
Meningitis ... ..	11	3	1	2	1	3	1	...	...	9
Organic Heart Diseases ... ..	141	...	...	...	4	9	14	46	68	46
Bronchitis ... ..	203	28	7	6	1	...	5	44	112	47
Pneumonia (all forms) ... ..	77	10	5	13	2	5	6	19	17	45
Other Diseases of Respiratory Organs ... ..	20	1	1	...	...	...	1	3	14	6
Diarrhoea and Enteritis ... ..	9	7	2	...	...	...	...	...	...	7
Appendicitis and Typhlitis ... ..	3	...	...	...	...	1	1	1	...	13
Cirrhosis of Liver ... ..	3	...	...	...	...	...	...	2	1	...
Alcoholism ... ..	...	...	...	...	...	...	...	...	...	...
Nephritis and Bright's Disease ... ..	30	...	...	...	2	1	3	14	10	13
Puerperal Fever ... ..	5	...	...	...	...	1	4	...	...	7
Other accidents and diseases of Pregnancy and Parturition ... ..	11	...	...	...	...	2	9	...	...	6
Congenital Debility & Malformation, including Premature Birth ... ..	119	119	...	...	...	...	...	...	...	48
Violent Deaths, excluding Suicide ... ..	27	2	1	...	4	2	8	6	4	26
Suicide ... ..	4	...	...	...	...	...	2	2	...	2
Other Defined Diseases ... ..	496	42	6	4	12	9	45	111	267	256
Diseases ill-defined or unknown ... ..	25	...	2	...	...	2	4	11	6	4
Totals ... ..	1627	228	46	54	48	70	211	384	586	729
SUB-ENTRIES (included in above figures).										
Cerebro-spinal Fever ... ..	2	...	1	1	...	...	...	...	...	3
Acute Encephalitis Lethargica ... ..	5	...	...	...	...	5	...	...	...	4

**Appendix III.****COUNTY BOROUGH OF DERBY.****MEASLES EPIDEMICS 1919—1920.**

The recent outbreaks of Measles in Derby may be considered to have commenced on the 16th February, 1919, and ended on the 28th February, 1920. In the beginning of the year 1919, there were only 19 cases of Measles and German Measles notified in the seven weeks. The number of notifications then rose to 14 in the week ending February 22nd, rising to 37 for the week ending March 8th, and continuing, as shown in the accompanying lists (1) and (1a). The total number of cases notified during the above-mentioned period was 4,182. Of these, 3,638 were notified as Measles, and 544 as German Measles. It is probable, however, that a greater proportion of the early cases in March, April, May and June of 1919 were really German Measles, and not true Measles, the great majority of the cases notified from September to the end of the outbreak being cases of true Measles.

Of the cases notified up to the end of May, 418 were notified definitely as German Measles, and 257 as cases of true Measles. In the case of the latter, enquiry showed that, in 140 cases, the rash appeared the same day as the onset of illness, while in 63 cases the rash appeared on the day following the onset of symptoms that is to say, out of 257 cases, 203 had no premonitory symptoms of a catarrhal nature suggesting true Measles. Not only so, but only one death occurred between the dates of February 16th and July 5th, 1919.

At the beginning of July, the relative number of German Measles to cases notified began to be much reduced, and the proportion of true cases of Measles increased, until at the end of the year only a small percentage of cases were reported as German Measles.

95 cases were notified twice within the period under review as indicated in the subjoined table.

**Second Attacks during period 16th February, 1919, to  
28th February, 1920.**

45 under 10 years } 3 over 10 years }	notified as Measles in both attacks.
43 under 10 years } 1 over 10 years }	1st Notification German Measles. 2nd „ „ Measles.
3 under 10 years } 0 over 10 years }	notified as German Measles in both attacks.

It is probable that many of these suffered from German Measles at first, and later developed Measles.

Two of the 27 deaths occurred in the week ending July 12th, 1919 (one occurred in the week ending 1st March, 1919), the remaining 24 deaths of Derby cases occurring between October 12th, 1919, and February 28th, 1920. There were therefore two epidemics in the above-mentioned period (*a*) of German Measles in the Spring and Summer, and (*b*) of True Measles in the Autumn and Winter.

**Persons Notifying :—**

The relative number of cases notified by Medical Practitioners, Parents, School Teachers, etc., is indicated in the appended list :—

Measles.      German Measles.

2,258	..	385	by Medical Practitioners.
535	..	26	by Parents.
480	..	112	by School Teachers.
136	..	18	by School Nurses.
225	..	—	by Health Visitors.
3	..	3	by Medical Officers of the Health Dept.
1	..	—	by Midwife.
<hr/>			
3,638	..	544	
<hr/>			

Total 4,182

**Ages.**—The age distribution of the 4,182 cases is given in Table (2) with the deaths and case-mortality at the various ages.

**Sex.**—2,171 of the notified cases were females. Of these, 1,868 were notified as Measles and 303 as German Measles. 2,011 were males, 1,770 being notified as Measles and 241 as German Measles.



**Fatal Cases.**—Eight deaths occurred in babies under one year of age, the youngest child being three weeks old at death. Four of the deaths occurred at nine months, a fact which suggests the dangers of the weaning period. The following Table gives details of the feeding of these eight cases :—

**Deaths under One year of age.**

	Age.	Feeding.	Remarks.
(1)	3 weeks.	Breast fed 8 days, then artificially fed.	Small child.
(2)	4 months.	Irregular breast feeding.	Child had thrush and eruption (?) eczema on head and hip.
(3)	6 months.	Weaned at 2 months.	A Marasmic Child.
(4)	7 months.	Weaned at 1 month.	Had umbilical hernia.
(5)	9 months.	Weaned at 8 months.	Illegitimate.
(6)	9 months.	Mixed feeding from birth. Weaned at 8 months.	Had Abscess Neck.
(7)	9 months.	Weaned on day rash appeared.	Child under treatment for Broncho-Pneumonia in Children's Hospital when rash appeared.
(8)	9 months.	Weaned at 4 months.	Mother had inflamed breast.

Ten deaths occurred between the ages of one and two years, four deaths between two and three years, one between three and four years, two between four and five years, one between six and seven years, and the other between seven and eight years of age. Most of the deaths, therefore, occurred in the second year; one-half of the total deaths occurred between the ages of one and three years. 22 out of the 27 deaths (81·5%) occurred between 0 and three years of age. Eleven deaths occurred in the Borough Isolation Hospital, and one each in the Union Infirmary and the Derbyshire Royal Infirmary, respectively.

The secondary cause of death was attributed in 14 cases to Broncho-Pneumonia; in four cases to Bronchitis; one case to Pneumonia; another to Congestion of the Lungs; and in another to Laryngitis. Meningitis was given as a cause in one case; Meningitis and Broncho-Pneumonia in another instance; Diphtheria

and Broncho-Pneumonia in another ; while in the three remaining cases, the secondary cause of death was put down respectively as Pyæmia, Convulsions, and Enteritis. Pulmonary complications, therefore, were the secondary causes of death in 23 out of the 27 deaths. Of the fatal cases, 14 were females and 13 males.

### Housing Conditions.

A tabular statement of size of house, number of occupants, and number of cases in the various houses is given in Table (3).

The following table gives the number of households and institutions affected :—

HOUSEHOLDS AFFECTED.					
In 2,210 Households	1 case occurred	..	2,210		
„ 568	2 cases	„	1,316		
„ 185	3 „	„	555		
„ 36	4 „	„	144		
„ 8	5 „	„	40		
„ 1	6 „	„	6		
„ 1	7 „	„	7		
<hr/>					
3,009				4,098	
In 12 cases	no record was obtained	..	12		
INSTITUTIONS AFFECTED.					
Railway Servants' Orphanage	..	26			
Derbyshire Royal Infirmary	.. ..	8			
Children's Hospital	.. ..	5			
Deaf and Dumb Institution	.. ..	2			
Borough Isolation Hospital	.. ..	1			
Nightingale Nursing Home	.. ..	2			
Military Hospital	.. ..	1			
Women's Hospital	.. ..	1			
Derby Union Infirmary	.. ..	3			
Guardians' (Scattered) Homes	..	11			
Training College	.. ..	3			
Private Schools	.. ..	5			
Y.W.C.A.	.. ..	1			
<hr/>				69	
Hotels	.. ..	3			
<hr/>					
Total				4,182	
				<hr/>	

**Schools.**—All the Public Elementary and Secondary Schools were affected, the number of cases attending the various schools being indicated in Table (4).

**Previous Attacks.**—The following Table gives a summary of the children stated to have had previous attacks :—

**Measles.**

Under 10 years ..	378	{	includes 2 previous attacks	37
			„ 3 „ „	2
Over 10 years ..	58	{	„ 2 „ „	7
			„ 3 „ „	4
			„ 4 „ „	1

**German Measles.**

Under 10 years ..	125	{	„ 2 „ „	2
Over 10 years ..	62	{	„ 2 „ „	4
			„ 3 „ „	5

---

Total .. 623

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11·9% of Measles cases had previous attacks.

34·4% of German Measles cases had previous attacks.

14·9% of Measles and German Measles cases had previous attacks.

**Nuisances and Sanitary Defects.**

The following is a summary of defects found in connection with the dwellings of the various patients :—

Accumulations of refuse	..	..	..	..	3
Ashpits—	Defective	..	..	..	2
	Require emptying	..	..	..	4
Drains—	Blocked (House)	..	..	..	16
	do. (Streets)	..	..	..	3
	Defective	..	..	..	1
	Offensive (House)	..	..	..	9
	do. (Street)	..	..	..	4
Houses—	Damp	..	..	..	4
	Defective chimney	..	..	..	1
	„ roofs, floors, walls	..	..	..	48
	„ sinks	..	..	..	2
	„ spouting	..	..	..	2

	Dirty	..	..	..	..	21
	No dust-bin	..	..	..	..	7
	Paving of yards in bad repair			..		3
	Soft water cistern offensive	..	..			1
	Stagnant water in yard		..	..		2
	Water in cellars		..	..	..	4
	Window fixed	..	..	..	..	1
Manure Heap	Offensive	..	..	..	..	2
Stable	Offensive smell	..	..	..	..	1
Tub Closets—	Leaky tubs	..	..	..	..	5
	Offensive smell	..	..	..	..	1
	Requires emptying		..	..	..	1
W.C.'s—	Defective fittings		..	..	..	12
	Dirty	..	..	..	..	1

### Measures for dealing with the Cases.

The notification of Measles and German Measles was continued with the sanction of the Ministry of Health after December 31st, 1919, when the general notification of these diseases throughout England and Wales was annulled. The same facilities, therefore, for obtaining knowledge of the occurrence of these diseases was available in 1920 as in 1919. The cases, when notified, were visited either by the Health Visitors, School Nurses or Sanitary Inspectors ; 3,105 of these cases being visited by Health Visitors, 1,041 by School Nurses, and 24 by Male Sanitary Inspectors. Of the remaining 12, most of them were not visited at the request of the medical attendant. Enquiries were made as indicated on the accompanying card. A number of cases were removed to the Isolation Hospital, namely, 139 Measles and six German Measles a total of 145, or 4·13%. Of this number eleven proved fatal, a case-mortality of 7·6%.

Cases selected for Hospital were generally (*a*) those occurring where the home conditions were bad ; (*b*) where there was no mother, or other adult relative to attend to them ; (*c*) where there were other young children in the house, especially if there were any under five years of age ; and (*d*) where the child was seriously ill, requiring skilled nursing.

In all cases, however, home nursing was aimed at where possible, and, since the local nursing institution declined to provide nurses for these infectious cases, although they provide them for Pneumonia, it was necessary to depute members of the Health Visitors' Staff to deal with the nursing of these cases. Nurse Gooseman, a fully-trained nurse, with recent experience of nursing in the Children's Hospital, was accordingly deputed to carry out these duties, which she did most efficiently, and I am of the opinion that lives were saved and complications prevented through her help and instructions. 320 cases were nursed at home by this Nurse (or on occasion by a deputy), 937 visits being paid for purely nursing purposes. Nursing help was also occasionally given when visiting by the Health Visitors and School Nurses, as well as demonstrations and instructions as to bathing, cleansing of eyes and ears, application of poultices and wool jackets, etc.

The Educational campaign by the Health Visitors and Nurses was important in order to combat the following ideas and prejudices :—

(1) the under-estimation by relatives of the serious nature of the disease in young children ; (2) the idea that since children must contract measles sooner or later, the sooner they have it, and get done with it, the better ; (3) the prejudice against fresh air ; (4) the prejudice against washing or sponging the patient until the rash has disappeared ; and (5) the great tendency to overclothe the patient with excessive personal and bed clothes.

Especial attention was also directed by the Health Visitors to (a) the ventilation of the sick room : (b) the cleanliness of the room, food vessels, etc. ; (c) the cleansing of eyes, nose, etc. ; (d) destruction of discharges ; (e) the importance of the toilet of the mouth, etc. ; (f) the presence of insanitary conditions, blocked drains, fixed windows, etc.

The food supply of the patients was carefully enquired into. Dried milk was provided free to all children needing it. This was, however, only necessary in seven cases, ten pounds of Dried Milk being supplied.



Handbills were distributed by the Health Visitors and School Nurses, and an advertisement, calling the attention of the public to the outbreak and the precautions to be adopted, was inserted in the public press (copy attached).

**School Closure.**—No closure of schools or Infants Departments was recommended.

**Sanitary Defects.**—These were dealt with effectively as soon as practicable.

**Results of Measures Adopted.**—Although it cannot be claimed that the efforts of the staff of the Health Department resulted in diminished spread of the disease, yet it is probable that lives were saved, complications prevented, and increased comfort of the patients produced.

The following Table gives the total deaths in each of the past 40 years, as well as the quinquennial and decennial totals and averages :—

MEASLES DEATHS DURING THE PAST 40 YEARS.

Year.	Census Population.	No. of Deaths.	
1880	81,171	49	Total 140. 5 years' average 28.
1881		3	
1882		30	
1883		30	
1884		28	
1885		27	Total 157. 5 years' average 31.4 Total for 10 years 297. Average 29.7
1886		5	
1887		101	
1888		20	
1889		4	
1890	94,146	119	Total 237. 5 years' average 47.4
1891		24	
1892		20	
1893		15	
1894		59	
1895		6	Total 132. 5 years' average 26.4 Total for 10 years 369. Average 36.9
1896		32	
1897		17	
1898		53	
1899		24	
1900	114,848	97	Total 155. 5 years' average 31.
1901		—	
1902		38	
1903		5	
1904		15	
1905		45	Total 192. 5 years' average 38.4 Total for 10 years 347. Average 34.7
1906		2	
1907		80	
1908		20	
1909		45	
1910	123,410	14	Total 110. 5 years' average 22.
1911		55	
1912		9	
1913		13	
1914		19	
1915		70	Total 150. 5 years' average 30. Total for 10 years 260. Average 26.
1916		1	
1917		55	
1918		5	
1919		19	
Total	..	1,273	

TABLE No 1.  
MEASLES NOTIFICATIONS AND DEATHS (WEEKLY), 16th FEBRUARY  
1919, to 28th FEBRUARY, 1926.

Week ending	Noti fications.			Deaths.
	Measles.	German Measles.	Total.	
1919				
22 February .. ..	10	4	14	..
1 March .. ..	6	6	12	1
8 „ .. ..	23	14	37	..
15 „ .. ..	16	12	28	..
22 „ .. ..	17	19	36	..
29 „ .. ..	10	24	34	..
5 April .. ..	15	21	36	..
12 „ .. ..	19	53	72	..
19 „ .. ..	13	26	39	..
26 „ .. ..	23	26	49	..
3 May .. ..	22	44	66	..
10 „ .. ..	22	34	56	..
17 „ .. ..	16	49	65	..
24 „ .. ..	26	57	83	..
31 „ .. ..	19	29	48	..
7 June .. ..	20	14	34	..
14 „ .. ..	13	20	33	..
21 „ .. ..	31	16	47	..
28 „ .. ..	30	10	40	..
5 July .. ..	16	4	20	..
12 „ .. ..	66	6	72	2
19 „ .. ..	24	1	25	..
26 „ .. ..	9	2	11	..
2 August .. ..	27	10	37	..
9 „ .. ..	57	5	62	..
16 „ .. ..	65	3	68	..
23 „ .. ..	95	1	96	..
30 „ .. ..	57	3	60	..
6 September .. ..	66	3	69	..
13 „ .. ..	47	1	48	..
20 „ .. ..	74	..	74	..
27 „ .. ..	71	1	72	..
4 October .. ..	96	5	101	..
11 „ .. ..	141	3	144	..
18 „ .. ..	201	1	202	1
25 „ .. ..	319	2	321	..
1 November .. ..	241	2	243	..
8 „ .. ..	293	9	302	1
15 „ .. ..	255	..	255	4
22 „ .. ..	291	..	291	1
29 „ .. ..	194	..	194	2
6 December .. ..	152	..	152	1
13 „ .. ..	112	..	112	2
20 „ .. ..	95	..	95	1
27 „ .. ..	47	..	47	1
1920				
3 January .. ..	44	..	44	3
10 „ .. ..	30	1	31	3
17 „ .. ..	27	..	27	1
24 „ .. ..	19	..	19	1
31 „ .. ..	8	..	8	..
7 February .. ..	15	..	15	1
14 „ .. ..	9	1	10	..
21 „ .. ..	14	1	15	..
28 „ .. ..	10	1	11	1
Total's .. ..	3638	544	4182	27

TABLE No. 1a.  
MONTHLY NOTIFICATIONS OF MEASLES AND GERMAN MEASLES.  
JANUARY, 1919 to FEBRUARY, 1920.

Month.	Totals.	Measles.	German Measles.	German Measles.
1919				%
January .. ..	9	3	6	66·6
February .. ..	24	15	9	37·5
March .. ..	147	72	75	51·0
April .. ..	196	70	126	64·3
May .. ..	318	105	213	67·0
June .. ..	154	94	60	38·9
July .. ..	128	115	13	10·1
August .. ..	323	301	22	6·8
September .. ..	263	258	5	1·9
October .. ..	768	757	11	1·4
November .. ..	1285	1274	11	0·8
December .. ..	443	443	..	..
1920				
January .. ..	92	91	1	1·1
February .. ..	51	48	3	5·9
Totals .. ..	4201	3646	555	13·2

TABLE No. 2.  
AGE INCIDENCE OF NOTIFIED CASES AND DEATHS,  
16th FEBRUARY, 1919 to 28th FEBRUARY, 1920.

Ages.	Cases.	Deaths.	Case Mortality.
Under 1 month .. ..	2	1	
1 month and under 2 months ..	6	..	
2 months ;, ,, 3 ,, ..	5	..	
3 ,, ,, ,, 4 ,, ..	4	..	
4 ,, ,, ,, 5 ,, ..	8	1	
5 ,, ,, ,, 6 ,, ..	6	..	
6 ,, ,, ,, 7 ,, ..	10	1	
7 ,, ,, ,, 8 ,, ..	13	1	
8 ,, ,, ,, 9 ,, ..	22	..	
9 ,, ,, ,, 10 ,, ..	28	4	
10 ,, ,, ,, 11 ,, ..	24	..	
11 ,, ,, ,, 12 ,, ..	24	..	
Totals under 1 year ..	152	8	5·26 <sup>0</sup> / <sub>0</sub>
1 year and under 2 years ..	288	10	3·47 <sup>0</sup> / <sub>0</sub>
2 years ,, ,, 3 ,, ..	323	4	1·24 <sup>0</sup> / <sub>0</sub>
3 ,, ,, ,, 4 ,, ..	454	1	0·22 <sup>0</sup> / <sub>0</sub>
4 ,, ,, ,, 5 ,, ..	636	2	0·31 <sup>0</sup> / <sub>0</sub>
5 ,, ,, ,, 10 ,, ..	1951	2	0·10 <sup>0</sup> / <sub>0</sub>
10 ,, ,, ,, 15 ,, ..	195	..	..
15 ,, ,, ,, 20 ,, ..	65	..	..
20 ,, ,, ,, 25 ,, ..	55	..	..
25 ,, ,, ,, 30 ,, ..	22	..	..
30 ,, ,, ,, 35 ,, ..	24	..	..
35 ,, ,, ,, 40 ,, ..	7	..	..
40 ,, ,, ,, 45 ,, ..	8	..	..
45 ,, ,, ,, 50 ,, ..	2	..	..
Totals at all ages .. ..	4182	27	0·65 <sup>0</sup> / <sub>0</sub>







*Copy of Advertisement inserted in the Public Press,  
November, 1919.*

**NOTICE—MEASLES.**

Measles is very prevalent in Derby at the present time, and it is not only dangerous to life, especially in the case of young children, but often leaves serious complications behind. It is the duty of parents and guardians to notify the disease to the Health Department immediately, unless a doctor should be in attendance. Precautions should be taken to prevent the spread of infection. The patient should, therefore, not be exposed in Public, but should be immediately isolated at home and kept indoors for at least a fortnight.

By order,

A. E. BRINDLEY, M.D.,

*Medical Officer of Health.*

# COPY OF REPORT CARD. (*Front*).

125

No.	Measles.	Date of Visit
Name	Address	Age and Sex
Notified by	on	
Onset	Rash	Dr. called in
Size of House	Rent	Old, New, B.B., N.T.V., Good Repair, Clean, Dry
How long resident	School (day)	School (Sunday)
How isolated	Associated school cases	
Nurse	Other duties of Nurse	
Precautions	Removal desired	
Visits made or received		
Previous case—house	Vicinity	
Sanitary conveniences—Pail, P.A., W.C.	Recent exposure to weather	
Probable source of infection		
Cleanliness (personal)	(of house)	
Clothing and Feeding—adequate	inadequate	suitable unsuitable

**COPY OF REPORT CARD.** (*Reverse*).

[illegible]



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